



SEQUENCE LISTING

<110> MERKULOV, Gennady et al.

<120> ISOLATED HUMAN RAS-LIKE PROTEINS,
NUCLEIC ACID MOLECULES ENCODING THESE HUMAN RAS-LIKE
PROTEINS, AND USES THEREOF

<130> CL001196

<140> 09/820,003

<141> 2001-03-29

<160> 40

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 1405

<212> DNA

<213> Homo sapiens

<400> 1

```
aagcgatagc tgagtgcggc ggctgctgat tgtgttctag gggacggagt aggggaagac 60
gtttgtcttc ccggaacagc ctatctcatt cctttctttc gattaccgct ggcgcggaga 120
gtcagggcgg cggctgcggc agcaagggcg gcggtggcgg cggcggcagc tgcagtgaca 180
tgtccagcat gaatcccga tatgattatt tattcaagtt acttctgatt ggcgactcag 240
gggttggaat gtcttgccct cttcttaggt ttgcagatga tacatataca gaaagctaca 300
tcagcacaat tgggtgtggat ttcaaaataa gaactataga gttagacggg aaaacaatca 360
agcttcaaat agagtccttc aataatgtta aacagtggct gcaggaaata gatcgttatg 420
ccagtgaata tgtcaacaaa ttgttggttag ggaacaaatg tgatctgacc acaaagaaaag 480
tagtagacta cacaacagcg aagggaattg ctgattccct tgggaattccg tttttggaaa 540
ccagtgtctaa gaatgcaacg aatgtagaac agtctttcat gacgatggca gctgagatta 600
aaaagcgaat ggggtcccga gcaacagctg gtggtgctga gaagtccaat gttaaaattc 660
agagcactcc agtcaagcag tcaggtggag gttgctgcta aaatttgccct ccatcctttt 720
ctcacagcaa tgaatttgca atctgaaccc aagtgaaaaa acaaaattgc ctgaattgta 780
ctgtatgtag ctgcactaca acagattctt accgtctcca caaaggctcag agattgtaaa 840
tggtcaatac tgactttttt tttattccct tgactcaaga cagctaactt cattttcaga 900
actgttttaa acctttgtgt gctggtttat aaaataatgt gtgtaatcct tgttgctttc 960
ctgataccag actgtttccc gtggttggtt agaatatatt ttgttttgat gtttatattg 1020
gcatgttttag atgtcaggtt tagtcttctg aagatgaagt tcagccattt tgtatcaaac 1080
agcacaagca gtgtctgtca ctttccatgc ataaagttaa gtgagatggt atatgtaaga 1140
tctgatttgc tagttcttcc ttgtagagtt ataaatggaa agattacact atctgattaa 1200
tagtttcttc atactctgca tataatttgt ggctgcagaa tattgtaatt tgttgcacac 1260
tatgtaacaa aacaactgaa gatatgttta ataaatattg tacttattgg aagtaaaaaa 1320
aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1380
aaaaaaaaa aaaaaaaaaa aaaaaa 1405
```

<210> 2

<211> 173

<212> PRT

<213> Homo sapiens

<400> 2

```
Met Ser Ser Met Asn Pro Glu Tyr Asp Tyr Leu Phe Lys Leu Leu Leu
1          5          10          15
```

RECEIVED
APR 16 2003
TECH CENTER 1600/2900

RECEIVED

APR 16 2003

TECH CENTER 1600/2900

Ile Gly Asp Ser Gly Val Gly Lys Ser Cys Leu Leu Leu Arg Phe Ala
 20 25 30
 Asp Asp Thr Tyr Thr Glu Ser Tyr Ile Ser Thr Ile Gly Val Asp Phe
 35 40 45
 Lys Ile Arg Thr Ile Glu Leu Asp Gly Lys Thr Ile Lys Leu Gln Ile
 50 55 60
 Glu Ser Phe Asn Asn Val Lys Gln Trp Leu Gln Glu Ile Asp Arg Tyr
 65 70 75 80
 Ala Ser Glu Asn Val Asn Lys Leu Leu Val Gly Asn Lys Cys Asp Leu
 85 90 95
 Thr Thr Lys Lys Val Val Asp Tyr Thr Thr Ala Lys Glu Phe Ala Asp
 100 105 110
 Ser Leu Gly Ile Pro Phe Leu Glu Thr Ser Ala Lys Asn Ala Thr Asn
 115 120 125
 Val Glu Gln Ser Phe Met Thr Met Ala Ala Glu Ile Lys Lys Arg Met
 130 135 140
 Gly Pro Gly Ala Thr Ala Gly Gly Ala Glu Lys Ser Asn Val Lys Ile
 145 150 155 160
 Gln Ser Thr Pro Val Lys Gln Ser Gly Gly Cys Cys
 165 170

<210> 3
 <211> 46050
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> misc_feature
 <222> (1)...(46050)
 <223> n = A,T,C or G

<400> 3
 ttttgggtgt gtgtgtgtgt gtgtgtgtgt gtgcctttac tagtgactca ggtcacagtt 60
 ttctgagatt ttttttctcc cctcaagaca gaatcttgct ctgtcgccca ggctggagtg 120
 cagtggcctc tcggccactc gtagcctccg cctcccgggt tcaagcaatt ttcctgcctc 180
 agcctcccga gtagctggga ttacaggcac gcgccaccat gcctggctaa tttttgtatt 240
 tttagtagag acagtgtttc accatgttgg ccaggctgggt cttgaattcc tgacctcgtg 300
 atctgtccgt tttggcctct caaattcctg agattacagg catgagccac cgagcctggc 360
 cagttttctg agtttttatt tgaaatcaaa ataagctttt tttttttttt taatgggctt 420
 tagagtccag ggtaacgaac acttttttgg gcctattact gaaccattca gggtattcct 480
 ggggtgggtga ccgtgttcat ttcagaaacc aacatgttca tttcagaaac caaactcggg 540
 taacttttga taagtccatc aactaaggcc catggcagaa tttgagggct aaggggtgta 600
 attagtgtat gggtagaaat aagtgccttc tttctatatt ttggcgttgt aggaatttaa 660
 agtgattctg cagtaagtct caggagacaa ttttcttagt tcttagaagt tggaagataa 720
 actttggaca atgtattaca ctatgccctt tgtaattaaa taactcaaga taatgtgtta 780
 aagtttagcg gagatttaaa ttccctgagct gattaaagag agctgttaag gccatagggt 840
 ttttaaaaaat gagttaatat tactcccaga aattgtagcc actatatagt gatgaattgc 900
 atatttttat tgcttattat tttccagtct tgcagaatgg ctcagggtta gtagcaacta 960
 aaagataata cattacaatt caacctgaag gccgggacga aggtaggaat tggatttttag 1020
 gctggctctg ggctgtgtcc ctcccatcca tgggatgtgg agccattgaa ggttgtgggg 1080
 tcacgatgca ggtgctgtct cagaaagata catccgactg tgtgtgcaaa tgggctgggg 1140
 cggagaagag agagagaggt agagtccatt tggagactac tgcaatagcc aggctgacga 1200
 gttaagagcg gggcacagta agaatgggaa gaaatctaag aagaaaatgg tagtgcgcgg 1260
 ggccaacaat ggacgatgac cgaacccagg tggggatggg tgagtacga gaagaaccgc 1320
 tccgtgccgt ccaggagacc ccttgacttc ccttctgttc ttagagcgga cgtcctccta 1380
 ccagccccc accagcgcca ccagggtggc gcaagcctca agctggtcag gtcagcaaca 1440

RECEIVED

APR 16 2003

TECH CENTER 1600/2900

gccgcaacgg aggcaggagc cgacacgctc gtaccccgcc cccctccccg cccccgcacc 1500
cccgccagtc cctccggttt gaccactccc cccggtccct tgctccccc gacccccagc 1560
ctccgtcggc cgcgggcacc accctccgcc cctctccgcc cctcccccg tggggcgctg 1620
actgccccg ctgccacgtc tactgatga catcactagg gcagctcggc cttagccaat 1680
ccgccagggg gtagtccgagc gaagtccatg ccagcgagtc agaggggagg ggagcaggga 1740
ggggccgagg gtggggagggt gagggagtg ggaatggggc gggcgacaac cttcaggtg 1800
cgcatgcccc agaggcgagg cgcttgagg gaagctgagt cctggccttg cgtcgactg 1860
tctgtcctca gctcgcgtag ccgcgctcgc gactcccttt cccggcatgc caggcggtgc 1920
ggccgccttc tgggcccgtg aaaggccctt cgggtctaagg cttccctatt tcctgggttc 1980
ccggcggcca ttttgggttg aagcgatagc tgagtggcgg cggctgctga ttgtgttcta 2040
ggggacggag taggggaaga cgtttgctct cccggaacag cctatctcat tcctttcttt 2100
cgattaccgg tggcgaggag agtcaggggc gcggctgcgg cagcaagggg ggcggtggcg 2160
gcggcggcag ctgacgtgac atgtccagca tgaatcccca atagttagtt caggagagca 2220
ccggctcggc ggggtcgttg gccagcttgg gggatcttaa aggggtcagg gagggttggg 2280
gcagaagtgc gggcatcggc tggggtagg cgagggtgag gggtcaggag aggctggcg 2340
ccgggagtcg ggcccattg tctgacggc agggcgggc gcgcggggga ggggtcgggc 2400
cggaggggtg agccgcccgg gcctggaccg ggtcagggtta gagggcctga ctgcggggcg 2460
gggtgctgagg aagcctgccg aggggcctgg ggcggtgtag aggggtatct tctctcggag 2520
gcagtgactt ttgaaggagg acttgctctc aaggggaggg gatgggggtg gagagccctt 2580
ctagagggca ctgtcagacc ctgcgcccgc actctgcgga gctgtcagga tcttcggggt 2640
agaaaccagc tttacttgta aatcctgagc ttgttgggtc tctctccttc catcctcccc 2700
gccaggtttc aggtaatatg gatgcttttc gggactgcgt gggattgagg ggaatgagta 2760
gatggtgaga agcaactgaa catttattag ttctcttttt gagttgtgtc ttggaggagt 2820
tgtttaagag ctgcgcgggt ccattgccct cctataaaaa cctgggcatt tgtgagaatt 2880
ttgttttttt tttttttaaa gaggacacct aagtcatttt gtcttctgtg ggtcaaggga 2940
aaaaaaaaa actaaagcca agaatgtct ttttgatact cgcagattaa aggaagcttg 3000
ctgtcaagtt gaaagagaaa cgaacgggac ctatgataga tctgtatgta ggttttggat 3060
tacctgcttg gatgcttgca gatagggaat gaggttccat gacgtgtcat gaaaagttaa 3120
tgcatttctt tttcttgctt actcaagaag tcaccacagc agatgtgaca cactggcac 3180
ctttcctggg aactgggtgt cactccctt gggtagagtt tggtgggctc tcctcaatgg 3240
ccctttaaaa atttctcta cagtttacct gcatgtaaa taatgaataa ttggaagaga 3300
ccgaattggt attccttttc agtgtcaaag gcctttgagg gatgggggaa aatcagtatt 3360
tgttgtaaaa gttgagttaa ttgctgggt tggtcaatta ctgctagaca ttttccccta 3420
aaaggtccac ccaccagtt agctgactgt catatgtgtg tcacatggct cttgcaaaat 3480
gcttacaggt tttgtaatat tgtggcttga agctgaaatc ttttgacta aacagaaacc 3540
gtagtatttt attagaattt catgcttttag aagttgagg tagtgcttct gtagtgacat 3600
ttgctgtgtt gacagtttaa aaaaattttt ttttcaagg ctccaaggac aaagttgggt 3660
ttgcacagtt gaacggaggt gaacttgagg ttcttaattt agtagtttct ttggttaaca 3720
taaagaacat ggatttactg ctttatcgag gtttatagac ctctactgtt caggaaattt 3780
tctgaatttg ctatatatat gtttattagt gtaaataaat cttcaagatt agttgagaac 3840
tttgacaagt tactcagcct ctgaattttt tttcccttt gtaaaatagg ataattggag 3900
tcattattcc tgtcagggtg gtggtgaaat tcaaatgtat ataaaagaat ttgaaaaact 3960
gtgtgagcat tcttcagggt gatgcatca ttttcatgaa aggcattcta ttagtaccag 4020
gatttaggaa tataatcctt gcgcttaaga agtttagata taggccaggc gcggtggctc 4080
acctcagtaa tcccagcact ttgggaggcc gaggcggggc gatcccgagg tcaggagatc 4140
gagaccatcc tcggtaacac ggtgaaaccc cgtctctact aaaaatgcaa aaaaattagc 4200
cggcggtggt ggtgggcacc tgtagtccca gctactcgag aggctgaggc aggagaatgg 4260
cgtgatcccg ggaggtggag cttgcagtga accaagatct ggccactgca ctccagcctg 4320
gacgacagag caagactccg tctcaaaaaa aaaattattt attgttttga gacggagttt 4380
caatcttgtt gccagggtg gagtgcaatg gcgcaaatct cctctcaccg ccacctccg 4440
ctcctgggtt caagtgtatc tctgcctca gattcccag aagttgggat tacaggcatg 4500
tgccaccact cccggctaatt tttgtatttt tggtagagac ggggtttctc catgttggtc 4560
aggctggtct caaactcccc aagtgtccg ccgcctcag cttcccaag tggtgggatt 4620
acaggcggtg gccaccggcg ccggcagaaa tagattttat acatgtcaaa taccagtaga 4680
tatagcaaat tccagatgtg tggcatggat gagagcaaca agatttcagg gggatgggtg 4740
gttggtggtg gctatctggg ttttggaaga ctttatagaa gagagacctg aaagggattt 4800
atcagcaatt agatttggag gaacagaggg agtgactagg aattttcaag ggggagaaga 4860

RECEIVED

APR 16 2003

TECH CENTER 1600/2900

```

aggaggaatg gctcataaat gacaaggaca gtaataagta aatacgggtgt caaatcatcc 4920
tttcttttga agactaatga cctcaaaggg atcaaaccga gaaacagttt ttatatTTTT 4980
tctgggatca aatacatggg tatctggcct actatatTTg tattctagac tgttttagtaa 5040
aataatacag gaatttgaga aaacctttgc aaaagtgtta gtgaaaatta cttaggggtga 5100
gaggaagtga gggatatttt attaggggag gtcacaaggg cagtggagcaa tcagattttt 5160
agtaaatctga cttaagcagt ttctttttgt tttaatgaag cttgttatct ttataaaagt 5220
aatttagagaa aatttggaat ataaaggaaa gaaagaaaaa ttcttttagt ttttatcacg 5280
caaatacaag ctcatctgtt tttaacatct tgttccaaac tccaaagtct tgctttctct 5340
tcaattaaaa ctttaattggg tggatgcttt tcttgcttcc agtatgttat ctttaataact 5400
aacaatggta tattagctaa tgtttacaaa tgtactccag atgttcctta agttactttg 5460
gtttatcatt accaattttat attgttttct ttagaaaatt ataactcttg ttaatgggtt 5520
ctgctaaatt tggtagtgaa aatgggatct tgagaaaaaa gattctgaag caacagaatt 5580
tttagatttt tattggttta cataagagtt ggtagctgta ttactttttt tgtttgtttt 5640
gttttttttt tgagacggaa tcttgctctg tcgcccaggc cttggcctcc caaagtgttg 5700
ggattacagg cgtgagccac tgtgcctggc tgtttgtgtt tttttttgtt tttgttttct 5760
tttctttttc tttttttcga gatggagtct cactctgtca cccaggctgg agtgcagtgg 5820
cgcgatcttg gctcactgca atctctgcct cctgggttca agcgattttc ctgccttgg 5880
ctcctgagta gctgggatta caggcatttg ccaccataac cagctaattt ttgtatagag 5940
taccagacca tctctaattg tgatcaggct gaagcagggt gatcacctaa ggtcaggagt 6000
tcaagaccag cctggccaat atggcaaaac cctatctcta ctaatacaga aaattatct 6060
ggtgtgttgg ctggcgctg taatcccagc tactcgggag cgtgaggcag gacaatctct 6120
tgaaacctcg aggtggaggt tgcagtgacg cgagatcaca ccattgcact ccagcctggg 6180
caacagagca agacttgtct caaaaaaaaaa aaaaaaaaaa aaaaaaggc aattgaaagt 6240
gtaatctgaa cagttaaaaa agtagataga aagggttaa gctttttttt gaggatctga 6300
agaaaaatgt ggattttttt tgagctacgt tttgaagcag gcagtgatta tttcagcaca 6360
ttaagaaatg cttaacatgg ccaggcgagc tggctcacgc ctgtaattct cagcactttg 6420
ggaggccgag gtgggaggat catttgaggt catgaccagc ctggccaaca tgatgagaca 6480
ctgcctctac taaaaataca aaaattagct ggggtgtgtg gtgcacgcct gtaattccag 6540
ctactcagga aactgaggca ggagagtcac ttgaacctgg gaggcggagg ctgcagttag 6600
tccagatcat gccactgcac tccagcctga gggacagagt gagactcctc aaaaaaaaaa 6660
aaaaaaaaag aaagaaatac ttaacattat tctcgtgatt attctcataa catttttcat 6720
aatccactgg cttccagtgg attttttttag tgtcaagaaa ataattttga ttggttcatt 6780
tttaaggaat gtgttaagaa taaagcatgt ctacctgtct tcagtatacc agctaactat 6840
agtaggaaga aatatagtag tctacttaga tcaactataa ttctttaatg cagaaaaagt 6900
ttaagatatt taccttattt ttagccccc a tccccttaag tatatcatgg ctccagaatc 6960
tctgaaaatg ttatcagctc ttcagacttt gctcttcttt catgttatac tcaagaaaca 7020
tttgaccttt tttttttttt ttttgcttgc attgtgtttc aaataatttt taacaaaact 7080
taagtgtttg aaagtgaagc cagggtgtct ttgtgacttt tgggtgtgtg ttgaaaaact 7140
cagaaaagtt taaagaagaa agataactag tattctcatt gtccagaata tgatttttta 7200
aatgtctata gaatatcacc atctgtaatt cttccggtaa ttttaagtatt cagtagttgt 7260
ataaaacctt taaaatatat atattgagaa ttttgtgtga atgagatgat gagataatct 7320
tgtaggatca tttaaagata agaactgagg cctggcacag tggctcatgc ctataatcac 7380
agcactttgg gagggccagg cggtagatca cctgaggtca ggagtttgag accagcctgg 7440
ccaacatggc aaaacctgtc ctctactaag catagaaaaa ttaattgggt gtggtcgtgc 7500
ctgcgtgtag tcccagctgc ttgggaagct gaggcgggag aatctcttga accctggagg 7560
tgggcattgc agtgagctga gattgcccga ctgcactcca gcctgggcca cagagcaaga 7620
ctctgtctca aaataaagta aaataaaatg aagataacaa ctgaaaattc acattaaaaa 7680
tttttttga gcgactgtgc ctctatgtt gtgcaggctg gtctcaaaact cctggcctca 7740
agcgatcctt ccaaagcact ggggtgggcca ccattgtccag cctgaaattt tgcattaaaa 7800
aatttcccgc ttttggctgg gcgaggtgtc tcacgcctgt aatagcagtt tgggagccg 7860
aggcaggcag atcacttgag gtcagttcta gaccggcctg gccaatgtgg tgaaccctg 7920
cctctactaa aaacaccaa ttagctaggg gtggtgtgtg gcgctttag tcccaagcta 7980
ctgaggaggc tgagacaaga gaatcgcttg aatctgggaa aaagaggttg ccgtgagcca 8040
agattggcca ctgcactcca gcctgggtga cagagtgaga ttctgtctca aaaaaataaa 8100
aaataaaaat ttccccctt aatcaaatta agttaaaatg agggatgtta gacagttttt 8160
aaccatcaaa tatttttagt tagttttttt tttttaacgt tgtcttaaag atggaagtgc 8220
ttcaaaatca aatcttcctt gccagttctc tacttggctt cttttttttt ctttttgaga 8280

```

RECEIVED

APR 16 2003

TECH CENTER 1600/2900

tagagtctca	ctttgtcact	ggagtgcgtt	ggcgtgatct	cggtccactg	caacctccgc	8340
cttccagggt	taagtgttc	ttccacctca	gcctctcaag	tagctgggag	tacagggtgtg	8400
tgccaccaca	cccggcta	ttttgtagtt	ttagtagaga	cagggtttca	ctatgtttggc	8460
caggctggcc	tcaaactcct	gacctcgtga	tccaccacc	tcagccaaat	tgctgggatt	8520
acttgtgtga	gccacgcgcc	tggtctctac	ttggctttta	aagggaattt	tgctttctga	8580
gtaattttat	ttctcaggt	tcttggtctt	tttaattctg	gaagcaatct	taataattta	8640
tgtatgtgcc	ctgtaatccc	agcacttttg	gaggccgagg	tgggcgaatc	acgaggtcag	8700
gagatcgaga	ccatctggc	taacacggtg	aaaccccatc	tactaaaaat	acaaaaaatt	8760
agctgggcgt	ggtggcaggc	gcctgtagtc	ccagctactt	nnnnnnnnnn	nnnnnnnnnn	8820
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	8880
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	8940
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	9000
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	9060
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	9120
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	9180
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	9240
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	9300
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	9360
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	9420
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	9480
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	9540
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	9600
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	9660
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	9720
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	9780
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	9840
nnnnnnnnnn	nnnnnnnnnn	nnccaggctg	gagtgcagtg	gcacaatctt	ggcttactgc	9900
aacctctgtc	tcccggttc	cagcatttct	tctgcctcag	cctcctgagt	aactgggact	9960
acaggcgtcc	accaccagg	ccagctaatt	tttatattag	tagagatggg	gtttccaccat	10020
gttggccagg	ctggctctca	actcctgacc	tcagggtgatc	cgctgcctt	ggtctcccaa	10080
agtgttagga	ttacaggcgt	gagccactac	gtttggctgc	ttatcagctt	tttaccactt	10140
tgctgccact	acattttgga	attttccttt	gagaattagg	caaaatgccc	agactcccc	10200
ccggcccccg	cttttagagg	agaggggagc	aattagacta	ttcctttgtt	tccctataga	10260
aggtggggct	gagattactg	ctttgatatc	tggaatgtaa	tttaggggag	aaaatttagg	10320
tcttgccctt	tctttggaac	caccctggga	gtgttcgaga	ttattaatag	ggtaatgggt	10380
gaatgatatt	caggggaaaa	atggctcctga	ggagccagag	aactaagtgt	tagtttggtt	10440
gctgactgaa	acatgtgaga	gatagggtac	agaagaagta	ggaaatagtt	ttccttggtg	10500
cttctgtgac	aggttggttc	aattggctgg	aacaccctac	actgctttat	taaataccaag	10560
gttgtgatag	gttccagtta	agtttactgt	gttctatgct	tgtagatttc	ctaattagga	10620
caagtagtgt	taaataatgca	tgcctttatt	cacaagaggg	accattcttt	tggaaacatc	10680
actttttaat	aatactagggt	gctattttagc	acttactcgg	tgccagccac	gtggctatgg	10740
tttttttttt	tttttttttt	cgagacatga	tctagctctg	tctcccaggc	tggagtggtg	10800
gtagcacagt	catggctcac	tgcagtctca	acctcctgta	ctctagtgat	cctcctgtct	10860
cagcctctctg	agtaactggc	accatgcctg	gctaattttt	tttaagagat	gagatgtcgc	10920
tatgttgctt	atgctgggtc	cgaacacctg	ggctcaagtg	atcctccccg	cctgagcctc	10980
tcaaagtgtt	gggattacag	gtgtgacca	cctcacttgg	ccatctatgg	tctttacata	11040
gggcattttg	tgcagtctgc	atctcaaact	agtgatcttc	aacagtgaat	ctcagtgaat	11100
tatgtaattc	atgttttcca	agaacaatga	tggatttaatt	ttctctgaat	gtatttcctt	11160
tgtataataa	tagtacttaa	gtggaattac	tctttgtctc	ttctactctc	cttatagata	11220
ttttctggta	tcttgatttg	ggactgttac	atttaaccca	tttatggtcg	tgtagccata	11280
ctcacgttac	atttgatgca	tctgtccctt	ttgtgtctat	atactcatat	aacattttgc	11340
ataaagttaa	aggcagttca	caccaaggct	gttcatgaac	ctcagattaa	gaataactga	11400
tttaggagat	tgaacacaga	aaagagaatg	ttactatca	ttatcaatat	taaaatgtga	11460
aaatctgaga	gtgacaaagc	ttagctttaa	atctggtatc	ccaaactcat	ttgagttttt	11520
tttttttttt	tttttttttt	gagacaagggt	gtcgttttgt	ccccaggct	ggagtgtagt	11580
gggtgtgatc	tggtccactg	caacctccac	ctccagggtt	caagtgatcc	tcctgcctca	11640
gcctctgaag	ttgctgggat	tacaggctgc	gccaccacgc	ccagctaatt	ttttgtattt	11700

RECEIVED

APR 16 2003

TECH CENTER 1600/2900

atagtaaaga	eggagtttca	ccttattggc	caggctggtc	tcaaactcct	gatcttgtga	11760
tcttcccgcc	tggcctccc	aaagtgtctg	gattacaggt	gtgagccact	gttcccggcc	11820
taatttgagt	tttaaaatgt	ggagttaaag	atgttagtct	taaagtgggt	tagatgaaat	11880
ttataaaaat	agtcaaatag	ctaaatztat	aaaaggccat	ttgaaacaat	tttgtgaaat	11940
atataatgtg	gataattatg	tagtgcttta	tgtgtagatt	ggtggttagc	atctgcctga	12000
tgaagagcag	ttggatttct	tacttactaa	agctagtga	atctgaactc	caaattaggc	12060
atcttcacca	ggcttttttg	agccgagcta	acttactctc	ttttttat	ttatttttta	12120
attaattaat	tttttttttt	tttttttttt	tttggtagag	acaggatctc	cccatgttac	12180
ccaggcttgt	ctctggctcc	ttggctcaag	cagtcctcct	accttagcct	cccaaagtgc	12240
taggattaca	gctgtgagcc	actgcgccag	gctgagctta	ttctctacta	acacaagtgt	12300
tctaatttaa	tttaagcagt	gaatcacact	tttctttgta	tttggtcagg	ttctgggtgc	12360
tagtttata	atgatttgat	tcattctgat	agggtttttt	tgtttttttt	tgtttttgtt	12420
tttttgtttt	ttttgagaca	gagtctagct	ctgtcgccca	ggctggagt	tgggtggctcg	12480
atttcgggtc	attgcaactt	ctgcctccca	cccaggctgg	agtgcagtgg	ctcgattttc	12540
ggtcatttga	acctctgcct	cccaggttca	agcgattctc	ctgcctcagc	ctcctgagta	12600
gctgggatta	caagcaccca	ccaccatgcc	cggctaattt	tgtgtatttt	tagtagagac	12660
tgggtttcac	catgttgacc	acgctggctc	cgaactcctg	acctcagggt	atctgcctgc	12720
cttggcctcc	caaagtgtcg	ggattacagg	tgtgagccat	caaccagggc	ctcaagaact	12780
ttttattttt	gagacagggt	ctcactctgt	caccaggct	ggagtacagt	ggtgagatca	12840
tggcttactg	cagcctggac	ttcccaggct	ctggtgatcc	tcccatctca	gccccgtggg	12900
taattaggaa	tatagacaca	caccatgcc	tggcagtttt	tgtatttttt	ttcttttttc	12960
tctttttttg	tagagactgg	gtttcacatg	ttgtatcagg	ctgggttttg	actcctgagc	13020
tcaagcaatc	ctcactcttt	gacctcccaa	cgtgctggga	ttacaggcat	gagccactgt	13080
acctggcctt	ttctacatta	aaaacttttt	attaaaaaac	ccaaatcttc	cttgtgggtg	13140
tatatacata	tatacatagg	tacacacatg	gagaatttta	ccttggagga	aggcttgggt	13200
aagaaaatag	ccctttgggc	cgggtgcggg	ggctgacgcc	tgtagtccca	gcactttggg	13260
aggctgaggt	gggcggattg	cctgagctca	ggagttcaag	accagcctgg	gcaacacagt	13320
gaaaccctgt	ctctactaaa	atacaaaaaa	tcagctgggt	gtggcagcat	gtgcctgtag	13380
tcccagctac	ttgggagcct	gaggcaggag	aactgcttga	accggggagg	cagaggttgc	13440
agtgaagcca	gatttgtgta	ctgcacttca	gcctgcgcca	cagagcaaaa	ctctgtctca	13500
aaaaaaca	caaacaaca	aaaaaggaaa	atagcctttc	tctatcatca	gagtatatta	13560
agagttgagt	ttttttttct	gtttttttaa	atttttggtg	tttattttta	attacaaaac	13620
atggactctg	cttacaatt	aagaaaatga	ctcatgttca	aacaagcata	atcaatataa	13680
cagttaatac	aagttaaata	ttgtaatatg	tttacggaat	agcatggcaa	aatagtgc	13740
aagatttggg	gaaggggctc	ataatttctg	ttaacagaaa	gttttagtta	tgttgattca	13800
actggagagg	aacagagctc	ccagaaggac	tccagaacac	ttgatgcttg	tctgagtggg	13860
gtcagcagca	ctgagttccc	accagccaga	aagtttgtgt	gtgtacatta	tttcccttaa	13920
ctgccacaat	aatcccatga	agaaaatgcc	ctagttttac	aaacaaggaa	acagaggcag	13980
agaagagtta	aatgacttgc	ccaaggcat	tcaaagtaag	caactgaatt	ggaattttta	14040
ctcaaaggct	tggatgtccc	actacaacaa	ataggctgtt	tctgctttac	tacatgtgct	14100
tacttctaag	aatttaacat	tttaggctgg	ttgtgggtgg	tcactcctgt	aatctcagca	14160
cttttcggagg	ctgaggtggg	taaatcactt	gagctcagga	gtttgagacc	aacctgggca	14220
acatggtaaa	acctcatctc	taccaaaaaa	aaaaaaa	ctagctggac	gtgggtggc	14280
gcgcctgtgg	ttccagctac	tcaggaggct	gaagtaggag	gatcgtttga	gcctgggagg	14340
tggaggttgc	agtgaagcca	cattgcatca	ctgcactcta	gcctagggtga	cagagtgcga	14400
gcctatctca	cacacaaaaa	aaagaattta	aaattttagt	caagtaatta	ggcactaaca	14460
ttttgtggtc	agttacttta	cgaattcatg	gttgagggcc	tgatgtgggt	gctcatgcct	14520
gtaatcccag	cacttttgga	ggctgaggca	ggaggattgc	ttaggcccaa	gagttcaaat	14580
cagcctgagc	aacctagtaa	gatccccttt	ctgcaaaaaa	tttaaaaatt	agctgggc	14640
ggtagtgtc	acctgtagtc	ccaaccactt	gggaggctga	ggtgggagga	ttgcctgagg	14700
ccaggagttt	gagacctggg	cagcatatga	agacctgtc	tctaaaaaac	taaaaataaa	14760
aaatagccag	gtgtgggttg	tgtgcttctg	gtcccagcta	ctcaaggagg	tgaggcaaga	14820
gggttgcttg	agcccagaag	ttggaggctg	ccgtgaactg	tgattgcacc	actgcacttc	14880
agcctgggtg	acatagcaag	accctgtctc	tgtggtgggt	gtgggtgggg	gtgggggaag	14940
ggattttaaga	agggtttctg	aggtatgtat	tatttataaa	tgggctttta	actttaccct	15000
tcacatcttg	ggttgaaatt	aattgtatcc	attctcagtt	tttctgtctt	gctatatatt	15060
taaacttggg	gacttagagg	tcattgaggt	ctttctatga	aaagcaaatg	aagcagaggg	15120

ctgccttctc	ttgctgtaga	gggcacactt	gctgcagagc	atgttactgt	tttatgcatt	15180
gctaggcttt	gggagttgtg	acttgtatga	tcatagtact	tacaactatt	agttggcaat	15240
ttttaaacct	taacttttaga	ttatatatgt	aaactcctgt	gttcctttgt	cactgataat	15300
ctgaacagaa	gccttggaata	aataattttg	aagtttttgt	ctgaacctct	gaaatttgta	15360
ttgttatctc	atggttttgc	tgggaggaag	gagaaataac	aatggccact	tactgtgctt	15420
ctgtatgtgc	cagacagtat	gtgctagatg	tttcagaaac	gtgatttgta	atcctgacaa	15480
gaagcctaatt	tgggtggtag	tgggtgctaa	ctgaacctta	tagatgagga	aattgaggct	15540
catggtggta	agtgaataac	ttgcaccaag	atcctatggc	tggtatgcag	tagagcctca	15600
attcaagtac	gggtcttcca	gggtccaaacc	catgcaggct	ttgagaggta	aggaggtaga	15660
gaacgttgac	accccttctt	tgggtgtgtt	ttcagcaaatt	acttgtatgc	atattaaaga	15720
ctgtctaccc	ttttgtcatc	ttgtgtcact	tgtgtcttcc	tttgggtacta	cccaaatttc	15780
tttcagcatt	tcagctttga	atttttattt	ttattttatt	taattttattt	atttttttga	15840
gatggagtct	cactctgttg	tccaggctgg	agtgcagtgg	cgtgatatca	gctcactgca	15900
acctctgcct	cacaggttca	agcaattctt	cctgcctcag	cctccttagt	agctgggact	15960
ggagggtgcc	accaccacgc	ccaactaatt	tttgtatttt	tagtagagat	aggggttttac	16020
cttggtggcc	aggctgggtt	tgaactcttg	gcctcaagtg	atccaccac	ctcggcctcc	16080
caaaatgctg	ggattacagg	catgagccac	tgcacctggc	cagctttgaa	tttttagaat	16140
actgtttctaa	acagaactat	attggaacct	ggaaaattaa	tctattgtct	ctaaatacca	16200
aagaaaaaca	tgtaatttta	gtggttgatt	atgggaacaa	ttttttttta	gatggttcat	16260
ctgaatggga	agcatttttt	ttttaattgc	ttgactattt	ctttaaattt	ggagaaaaga	16320
ccattgcctt	ctcagatttc	tggtaattgg	tcacattgat	catttatatt	gactgacagg	16380
ctgctttgtc	cacagctgaa	ggattgttta	atttttttta	aattataaga	gtaaatatgta	16440
ctcactgtaa	aattcacagt	acagaagcat	atgaactaac	taaaagtctt	tacctcttgt	16500
ctccagcaag	gagtaagtgt	ttcaacctga	aggttgggtt	tgaatttgtt	tctgtggagc	16560
gtacttaaaag	tgagtgaaga	agaaaaattt	atgtcaatca	tgatcattgc	agctgaagtt	16620
tttattgttt	caccccttaa	aggttattaa	aatagtatgt	agtttagtag	tcttgataat	16680
tttcccttaa	gatttatttg	ccagtatatc	aggattttgt	tttaaatttg	atatgtgagc	16740
ttagttttat	gctattttca	aataagacat	ttagaagaag	ataaaataac	attcctgtct	16800
tagtcttggtt	tctgtgcta	taacagaata	ccacagactg	ggtaatttat	aaacaggtag	16860
agttttattg	gcctgtgggt	ctggaggctg	ggaacttcaa	gagcatgggt	ctgccctttg	16920
tgtgtgttta	tcatatgggt	gaagggtgaa	aggcaagtgg	gtatgtcaag	acagagagca	16980
agaaggggct	tgaactcact	tttataacag	agtgactcca	gagatagcta	accacttttt	17040
gagagaatgc	attaatccat	tcatgagggc	agagcccttg	tgacctaatc	acctctcatt	17100
aggctctgca	tccttaaaact	ggtttttttt	tgtttttttt	ttttgagacg	gagtctcgct	17160
ctgttgccca	ggccggactg	cggactgcag	tggcgcaatc	tcggctcact	gcaagctccg	17220
cctcccgggt	tcacgccatt	ctcctgcctc	agcctcccga	gtagctggga	ctacaggcgc	17280
ccgccaccgt	gcccggctaa	ttttttgtat	tttttttagta	gagacggggg	ttcaccttgt	17340
tagccaggat	gggtctcgatc	tcctgacctc	atgatccacc	cgcctcggcc	tcccaaagtg	17400
ctgggattac	aggcgtgagc	caccgcgccc	ggccccctt	aaactgttgt	attggggatt	17460
aagtatctaa	cacaggaact	ttggaggata	catttaaacc	ataagaattc	ctgtcatgca	17520
aatgaatcca	ttctagatga	aagagaatga	atttagtttc	cattgaactt	tataaatagg	17580
ccttttctaa	ggtactttaca	gctgatatta	taaaatttat	atttgttttt	ataaatttgt	17640
atttgatttt	ctgtttgtac	aaatacaatt	atacactata	gttctctgct	gttagatttt	17700
ttttcttctt	tagcatgttt	ccaaaggggtg	gaatgttgaa	agttgggtta	atgtcaatca	17760
gctttctttt	gtaaagtgtt	cattgacatg	tgaaccttgt	ctgagaatct	aaattttatt	17820
tcatgaaaga	agaaaacagt	atattctcat	ttaaaccaga	atttaacttc	ataacttgt	17880
ggctgtattg	ggagtatgcc	attgctgtct	gtttacaacc	tgacctactc	tacctactta	17940
gaagtaattt	gtgttatgat	agggtgtgctg	tgtgtacata	tgctgaacat	atgtgtaagg	18000
gtgttaagtc	attgaataaa	acgcttttct	cctcctttca	aataacattt	tttatttctg	18060
gttataaaaag	tcatacaagc	ttactgcag	ttgttaaaaa	ggtataaaga	agaaaccgct	18120
aatccattat	aatcctacag	tttagacttc	ctgtccagc	ctctcagagt	gctgagatga	18180
gctagccatg	cccagccctt	caaaagattt	tttaaaaaac	aaaaatgagg	ttatacttta	18240
aaaaattcta	tattcctttc	acataacagt	gttatttttg	aggttttaga	atttccagta	18300
gcatttttaga	ttcagaaaca	agctgattca	tcctctactt	tgtacttttag	gcaagaaaag	18360
aattttacct	aaatagaatt	ttgaactgaa	aatctgtttt	tctaactttt	tatttaaaga	18420
atattgttcc	atgctttcac	agtagtgact	tttaattttt	atatttttta	ttttatttat	18480
ttagagatgg	gggtctcact	cttgttgccct	aggctagagt	gagtgcaatg	gttctattcc	18540

tagctcactg	caaccttgaa	ctcctgggct	caagttaccc	tcctgcctca	gccttctaag	18600
tagctgggac	tacaggtgtg	caccactgca	ccaggctttt	tttaaaggca	tagaaaatgg	18660
tagtgcttgc	atacaaaaat	ggcgtaggta	catacatcag	cggacatcaa	gactatgttc	18720
agatcataaa	tgtacatata	tgtaccgatg	ccattttttgc	acgcaaacaa	ataatggaaa	18780
ttgaactcta	aactgaaatt	tgaacaagg	gttctggggg	gggccctctt	gctgatttgt	18840
aattgaatgt	atagttcaat	ttttcccat	ctgttaagca	aaagacaatt	ctaagtgttag	18900
caaaaatcca	catatcctgt	cattgatcat	tttttcctta	attttcttta	agagatgggg	18960
cttctctcta	tgttgcccag	gctggctctg	aactcttggg	ctcaaatgat	cctccagcct	19020
cagcctccca	aagtgtctga	attaataggc	acaagctgct	gtgcctggcc	ctgtcatcag	19080
tcattttaact	tcatgcaaac	tgagtagaat	aaaactcgtc	cttactgtac	cttattgtct	19140
ttgtttttatt	gttggaacct	ccaatattgc	gaaagtagac	caaaagttga	cttataggaa	19200
aaactgatag	caaaaaataat	ttttctcttg	ttgtctgtatt	tcatgcccac	catccagttg	19260
ttaaagccta	ctgttaattt	ctctcagcct	cctcctttct	gtccaggcct	attctatgcc	19320
attcttacct	taactgtttt	tagctttctc	atagagtga	cttttttaaat	taaaaataaa	19380
tatctgctcg	tagattata	aaattcaagc	agttcaacag	aatttttcac	taatagaaat	19440
acttgtacct	caaaagcagc	tttattttac	aaacccagcc	caattttgtga	ttagatttaa	19500
cttgagaaaa	catgaaatgt	ctctcatatt	gtttaaaaat	atcataagtg	gctgggcacg	19560
gtggcttatg	cctataatcc	caacactttg	ggaggctgag	gcagggtggat	cacttgagggt	19620
caggagtttg	agaccagcca	ggnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	19680
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	19740
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	19800
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	19860
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	19920
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnttc	19980
accatgttgg	ccaggctggt	ctcaaaactcc	tgacctcagg	tgatccacct	gcctgggcct	20040
cccaaagtgc	tgggattata	ggcttgagcc	tcgcctggcc	tcctcataat	tttttaacct	20100
ttataaaaac	cttttctaaa	acccttttta	ttttgaacta	aatttagatt	tactgaaatt	20160
gtgaaatcaa	tgtggagttc	ttgtataccc	ttctttccgc	ttttccta	agtaacatct	20220
tacatacatg	gtacatttgt	ccaaathtaag	aaataaacat	tggtagagt	ttactatag	20280
acttaatctg	gtttctctaa	tttttctact	aatgttcttt	ttctgttcta	ggatctaatt	20340
cagtatacca	tattgtattt	agttgtaggc	catgttagcc	accttcaatc	tgtgacagtt	20400
tctcagtcct	tccttctttt	tcgttatctt	gacaagtttg	aagagtgtct	ataggatatt	20460
tatagaatgt	ccgtcagttg	tctgtcagtt	tgtatttgct	tgatgtattt	tttttttttt	20520
ttttgagatg	gtgtctcgct	ctgtcgctta	ggctggagtg	caatggcatg	atcttggtct	20580
aatgcagcct	ccacctccgg	ggttcaagtg	actgtcctgc	ctcagtcctc	caagtaactg	20640
aaactacag	gtactgccac	cacgcctggc	taattttttg	tatttttagta	gagaagcagt	20700
ttcacctgtg	tgcccaggct	ggtctcgtgc	tcctgagctc	aggcaatcca	cccgcatagg	20760
cctcccaaag	cgctaggatt	acagggtgtga	gccaccatgc	ctggccaata	ttttgaggga	20820
tatacttttg	tgaggatcat	cagatattct	gtttctcctt	agttttatcg	attaatttag	20880
catttatcca	gtaaattctc	cttgacagca	ttattttttc	tttttctttt	ttccttaatt	20940
ttttttttta	gagatgggat	ctcactctgt	tgcccaagtt	ggaatgcagt	agtgaagttc	21000
tagctcactg	cagcctcaaa	ctcctgggct	caagtgatcc	ttctgcctca	gcctctcaag	21060
tagctgggac	tacaggcata	gaccaccaca	cccagcta	taaaaaaaat	atttttagag	21120
atgggggttt	tgtatgtttg	ctcaggctgg	tcttgaactt	gctggcctca	tgtgacctt	21180
ctacctcagc	cttacaagta	ggtgggaatt	acagggtgtga	gccaccacac	ccagcattgc	21240
agcaattatt	aatgtagtgc	tactggtcat	tttctgtttt	tctcatttct	tcagcatgtg	21300
ttattgactt	gtctcttccc	tcccatttat	aatcatttat	actgctatga	attcatgagt	21360
atthattttg	tgagttataa	tctaatacgt	acttaattta	ttttgtgcct	caaattgttc	21420
tggtctggcc	atthtttttt	tttttttttg	agacggtctc	gctctgctgc	ccaggctgga	21480
gtgcagtagc	gccactctct	ctcactgcaa	cctccacctc	ccgggttcaa	gcatctctcc	21540
tgctcagcc	tcttgagtag	ctgggactac	aggcgtgtgc	cgccacaccc	gtctaatttt	21600
ttgtattttt	agtagagaca	gggtttcacc	atgttagcca	ggatggtctc	gatctcctga	21660
cctcgtgatc	tgcccgcctc	agcctccaaa	agtgtctggga	ttacagggtgt	gagccacca	21720
gcccagaccg	ctcctgtatc	cttttaacat	gaggtgtgtg	catcattttt	tcccccta	21780
atthttggcca	aaaatgttaa	tcaaggatgg	cacaaatttt	ctgtagctgt	atctcaca	21840
gaaagaggcc	tgattaaaaa	tgtaaaacta	aaatgttctc	tgatctctta	gcacatgctt	21900
tgtaaaaggc	acagtgtctag	atccttgtat	acgtagatga	gtaagtcagc	ttaccttcca	21960

caccacaga	tagctatgtc	aaacgtaagg	gtggagaaac	acagacccca	aacttctcga	22020
gggtagaaaa	tatgagggtta	tagtagatta	gaactacaaa	aagctagagg	aagttctgaa	22080
ctggaaacag	tggataggat	ttactagaat	aattttacgag	ggtgacaatt	gtaaatcttc	22140
ataggtttct	tttttttct	ttctcttttt	ttttttttga	gatggagtct	cgctctgttg	22200
cccaggctgg	agtgcaatgg	cgcagtcct	cctcactgca	acctccgcct	cctgggtcca	22260
ggtgattctc	ctgccttagc	caccaagta	gctgggatta	caggcatctg	ccaccatgct	22320
gagctaattt	ttgtattttt	tttttttagta	gagacgggg	ttcaccatgt	tggtcaggct	22380
ggtcttgaac	tcctgacctc	aggtaatcca	cccaccttgg	cctcccaaag	tgctgggatt	22440
acaggtgtga	gccaccgcgc	ccagccaaat	ttttattgg	ttctaaacta	gcgtaattta	22500
gtttttttca	cttaagtcaa	aattatatta	ttgtaggata	aaaacttagt	gatccaaatt	22560
catgaggaat	gaagaataaa	tacatttaaa	gtcttaccat	ttgctaaatt	agtcttggct	22620
ctttgtacca	aaattctgtc	cttgtgctct	gtaattttat	atttgtatat	tttctatcaa	22680
catttttact	gtgtgggtgt	ttgtaaatta	taaaaacgtt	ttaaagcaaa	ctcagaacaa	22740
tgaattctca	cgaataattca	gtatatttac	agttgagaaa	taactactt	ctgtagtagg	22800
taatttaaaa	tgtcccaatg	caagttaacg	gtcactgat	cacgctattc	aggtgtgtgt	22860
ctttgataag	gggaggtggg	gaagtttgtg	ggtttgattt	tatttgcctt	tctcatgtga	22920
ctgttgtcat	gttagtaaac	aaatggtttg	cgagagaacc	agtagtcttt	tgcaaagatt	22980
gtcttataca	gagcactcaa	ttcttcatat	tatttataat	ggctttaatt	taagccttaa	23040
attattagaa	actcataaat	aattttttta	tttgtttttt	tgagatggag	tttcgcccct	23100
attgtccagg	ctgaagtaca	atgatgtgat	cttgactcac	tgcaacctcc	gcctctcggg	23160
ttcaagtgat	tctcctgcct	ttgcctccca	agtagctggg	attacaggca	tgcgctacca	23220
tgctgggcat	attttgtatt	tttagtaaa	acaggattgc	accatgttgg	ccaggctggg	23280
ctcgaactcc	caacctcagg	tgatccacct	gcttcggcct	cccagagtgc	tgggattaca	23340
ggctcactga	gccactgtgc	ccagccataa	tgcgtaaaaa	taagagtgtt	atatttgtaa	23400
aacttaaaaa	aatgtagtgg	ttgaaaaagg	taatttaaaa	agaattgact	attaatttct	23460
tgaaccata	atgtaacttg	tagtgcaatt	aggaaacctt	catgtttctt	tctttctttc	23520
tttttttttt	tttttgagat	ggagttttgc	tcttgttgcc	taggctggag	tgtgtgatgt	23580
cagcgactg	caacctctgc	ctcctgggtt	caagcaattc	tcctgcctca	gcctcccag	23640
tagctgggcat	tacaggcgcc	tgccaccaca	cccagcta	ttttgtattt	ttagtagagg	23700
cgggggtttca	tcgtgttggc	ctggctgggc	tcgaactcct	gacctcaggt	gatccactgc	23760
acctggcccc	cgttcatgtc	ttttaagct	ttatggttgc	tctgaaatag	agttgttgat	23820
tttttttttt	tttttgagac	tcctcttttg	cccgtgctgg	agtgcaagtgg	tgtgatctga	23880
gctcactgca	acctccacct	cctgagttca	agcaattctc	atgggtcagc	ctctcaagta	23940
gctgagatta	aagctgcccc	ccaccatgcc	tagctaattt	tagtatattt	agtagagatg	24000
gggtttcacc	gtattggcca	gggtggtctg	gaacttctga	cctcaggcat	gagccactac	24060
gcttagcctg	ggttgttgat	ctttaagggtg	acttctcagg	caacatctga	ggcccagtag	24120
agtcctttac	ttcaactggc	tccagtacag	caaattcagg	gaatgttttt	gagtgtttac	24180
tggatgcctg	gcgtggagtt	cagggagatt	ggtacattga	gtccagttgt	tgtgttgaaa	24240
cttctgttta	aaaacctccc	tactaagtcc	cagctactca	ggaggctgag	gcctgagaat	24300
cacttgaaca	cctggaggca	gaggttgca	tgaatcgaga	tcgagccact	gcactccagc	24360
ctgggcgaca	gagtgagact	gtctaacaac	aaaaacaaca	cccccaaaa	aaccaacctta	24420
ctatggtagt	atcaatgctg	tgatagtctt	cctttcttca	tacaggtaaa	ttcttaacat	24480
atactcattg	ttaatgttca	gtgttcagta	ttcttaagag	tatttggggc	caggcacggt	24540
ggctcatgcc	tgtactccca	gcactttggg	aggctgaggt	gagcagatta	cctgagggtta	24600
ggagcttgag	aacagcctcc	aacatgatga	aactcccgtc	ttactagaa	atacaaaaaat	24660
tagctgggtg	tgttagcaca	tgtctgta	cccagctact	tcagaggctg	aggcaggaga	24720
attgcttgaa	cctgggaggt	ggaggctgca	gtgacctgag	attgcttcac	tgactccag	24780
cctgggcaac	agagcgagac	tcttgtctca	aaacaacaa	acaaaaaag	aatatttggg	24840
gccaggcatg	gtggctcaca	cctgtagtcc	cagcactttg	ggaggccaag	gtgggtggat	24900
cacttgagat	caggagttgg	agaccagccc	gaccaacatg	gctaaatccc	gtctctacta	24960
aaagtacaaa	aattagcttg	agcaacagag	caagactctg	tctcaaaaaa	agaaagaaga	25020
atatttgggt	taattaagaa	ggaaccttat	caatagtagt	aaagtcagcc	agctgaactg	25080
ccaagtacaa	attgttggta	ttaggtatca	atcatttatt	aaggataata	ttctacaata	25140
gcgatctttt	taaaaatttt	aaaatctcaa	actggaaagg	atgtctagtt	cattctatgc	25200
ttcagtcccc	tcttctgatt	tacttgttta	gaagattttt	gtttccttct	ctgacttcta	25260
ttttgctgct	gactggcact	tgggattttt	aaaaaattat	tttcctcata	tataattaaa	25320
gacaataagt	ataacaataa	gtataatatg	gtaatttgc	aaaacccaaa	caatgtttta	25380

agtaatgcat	atcattatgt	aaacctacgt	aatagttgaa	tattcacaaa	gataatcgct	25440
tatagaagtt	ttatatcctc	tcttcttttg	cagtgcatt	aaaacaaaaa	aaataagttt	25500
tatgtcttgt	ttacatgtaa	ataattttaa	tctaaattgt	gacgtgggtt	tcacttttagc	25560
atatttttga	aagtaaatca	aaaaggacaa	aatacaaaat	catgtatatc	ttctacaaaa	25620
acgatataata	aattctaagg	tttttgcct	tttgaaattg	cttaaaagaa	tgcatagaac	25680
tggtgtctga	gttgggaagg	atctatgagg	gatttccttg	gagaccgtgg	gtgaataata	25740
atgttgctct	agttccatga	aggaatctct	gggatagtt	tttgagttag	gcctggcaat	25800
gtagagata	cataaagaga	gccttgtttt	atcactgggt	gcggtggctc	acacctgtaa	25860
ttccagcact	ttgggaggct	gaggcgggca	gatcatgagg	tcaggagatc	gagaccatcc	25920
tgccaacac	ggtgaaaccc	gtgtctacta	aaaatacaaa	aattagctgg	gcgtgggtggc	25980
gcatgcctat	aatcccagct	actcgggagg	ctgaggcagg	agaatcactt	gaaccaggga	26040
gttgagggtt	gcagtgcgac	gagatcgcg	cactgcactc	cagcctgggt	gacagagcaa	26100
gactccgtct	caaaaaaaaa	aagcttggtt	ttcaatggtt	ctgaaaaatg	ctttaataca	26160
agtgtagagt	gttagtcaag	ttttgcactt	ggataaacag	cctgtgaatt	tatcacattt	26220
ctagtttata	atatgggctt	tcagaagtta	tatgaacatt	gttttgacgg	gagaattcaa	26280
gctggatgct	agagaaggat	cgtgagaacc	ccttcattgg	aggagtgcct	tgaaattatt	26340
tgatcttggg	atTTTTTTTT	TTTTTTTTTT	TTTTTTTTTT	TTTTtgagac	agagtttctg	26400
tcttattgcc	caggctggag	ctggaatgca	gtggcacgat	ctcggtcac	tgcaacctct	26460
gcctcctggg	ttcaagcaat	tcttctgcct	cagcctacca	ggtagctggg	attacaggca	26520
tgcgcaacca	tgcccagcta	atTTTTgtat	ttttaatgga	gacgggggtt	caccatggtg	26580
gtcaggctgg	tcttgaactc	ctgacctcaa	gtgaactgcc	tgctcagcc	tcccaaagtg	26640
ttgggattac	aggtgtgagc	cactgcgcct	ggcctgatct	tagaatttga	aggagagact	26700
aatatttcat	gggcaaaaac	aatgaaaagt	tacctttctg	tattctaata	ctatagagga	26760
gtgggattta	tttagaatgt	tttaagtatc	ttgggcagtc	caagagtgcg	tatcacttat	26820
ttttcttttc	cttctttctt	tttaagtggg	agttcactga	tgtagagat	cataggtggc	26880
attgcctact	ttttacataa	ttttatcatg	tttagtgatc	tgtcagaagg	gctgtggctg	26940
tttgacgttt	tggttaagc	catgcatggg	ctttatagga	gatgtagtct	tcacagttag	27000
ttgttatttg	tagctgtgtt	tttgTTTTTg	tatagcttat	agcaatgcag	tgtgcttttt	27060
attaacataa	atcttctttt	ctttttgcag	tgattattta	ttcaagttac	ttctgattgg	27120
cgactcaggg	gttggaaagt	cttgccctct	tcttaggttt	gcagtaagtt	gaaattgaaa	27180
tgtctttaca	attaatggta	caattaatgc	tatgtatgtt	ttctaggtag	ataaaattaa	27240
acagttttat	tcagaataag	ttaattcttc	cagaatttat	atatttaaag	actccaaata	27300
tacatcccca	gtggtatctt	ggactgttaa	atagaaaaat	attgttgctc	ttaaaagaaa	27360
ttcagtgaag	tctggttata	aagtcagaat	gtctaatact	tttggtcaga	gtcaaacagc	27420
agttccaata	taggcagcaa	gttaaagggg	tagttgggtg	cctgtgttga	aagcgacttg	27480
atgaaaataa	atctttaaata	taaacttttag	tgataataaa	agaaaaagca	gagccaggtg	27540
acgcagtggg	tcatgcctgc	agtctcagct	actcaggggtg	ctgaggggtg	aaggatcact	27600
tgagtctagg	agttttgaga	ccaacctgga	caacatagca	tgactctgtc	tctgaaaaaa	27660
aaagttaata	aaagaaaaag	tagggtcttg	gacaaacttc	gttgccaat	ggcatagttc	27720
taaagctgga	agctgacaga	taaaggactt	ttgacttaac	agaatccaca	gtgtccttca	27780
tagtctttat	caactacctt	taaattttagc	atgtttcctg	gccaggtgcg	gtggctcacg	27840
cctgtaatcc	cagcactttg	ggaggccgag	acgggaggat	cacaaggtca	agagatttag	27900
accatcctgg	ctaacacggg	gaaaccccg	ctctactaaa	aatacaaaaa	atcagctggg	27960
tggtgtgcca	cacgcctgta	gtcccagcta	ctcgaggaggc	tgaggcagga	gaatcgcttg	28020
aaccaggag	gcggagggtg	cagtgcagtg	agatggtgcc	actgcactcc	agcctggcaa	28080
cagagcaaga	ctgtctcaaa	aaaaaaagaa	aaaaaataaa	aaaacaaatt	agcatgtttc	28140
ccttctagag	atcattgttt	ctcagagcat	ggaccaaaga	ctcctggggg	ttaccaagac	28200
cctctcaggt	agccccatgag	gtcaaaatat	cctaataata	ctaagatgtt	agtattttgta	28260
aggaaatatt	tacttggtaa	taataactaat	ataaaagatg	tttgcgtttt	tcagttagta	28320
cattggctct	ggtacaaaag	catgtgggta	aaattgctgc	tggtttggta	cacatcaagg	28380
cagcgctaa	ctccaaattg	tactcatggg	gatggcattc	tttacctctg	tgccctcaca	28440
ggaacaaaaa	caagccgtgc	cattttttatt	gaagattgtc	cttgacaaaa	cagttaaaat	28500
gattaatttt	tgaaaaatgt	tgatccatga	gtattccttt	aaaaatat	gtgaagaaat	28560
gggaagttca	cataaaacaa	tgtttttttt	ttgttttttt	tttttttttt	ttttgagaca	28620
gattctggct	gtgttgccaa	ggctagagtg	cagtggcgct	tggtctccag	gctcaagctg	28680
ttctcccact	tcagcctccc	aagtggctgg	gacctcccaa	gtggatgcgc	catcatgcct	28740
ggctgatttt	tgtatttttt	tgtagtga	aggtctcact	gtgttgaca	ggctggcttc	28800

aaactttctga	gctcaagcga	tgcattgtgcc	tcagcctccc	aaagtgtctgg	agaaagcact	28860
ttttactgca	tactggctag	tgtgtttggtt	attttggaga	aaagaaaagc	atltgtagtt	28920
ttttgagttg	taagctgagc	taactgcttt	atttttttct	gtggaacacc	atltcttttt	28980
ttttttttga	gatggaatat	tgttttgttg	cccaggctgg	agtgcagtgg	cacaatctcg	29040
gctcactgca	acctccgctt	ctcgggttca	agcaattctt	ctgccgtagc	ctcccaagta	29100
gctgggatta	taggcacctg	ccaccaagcc	cagctagttt	ttgtattttt	agtagagatg	29160
gggtttcacc	atggttgcca	ggctggtctc	gaactcctga	cttcgtgatc	cgcttgcttc	29220
agcctcccaa	agtgtctggga	ttacaggcgt	gaactactgc	acctggacat	tttttttttt	29280
tttttaactt	gaaagaacag	ctaacagaca	gattagaaca	gaattggcta	tttgacagat	29340
tttctcagat	gaactgtgat	agtcatttca	agggaaagtag	ctgcaagcat	ttgttggctg	29400
aaataaaaatt	taagttttatc	atggaaaatt	agaattttgaa	aaaacttaga	gtttaccact	29460
tgacagtatc	ctaaatacat	atgacttttc	tgatgagtgc	cgatattaat	gaaggttatt	29520
taaaaaata	taaataatgt	ataattcttt	ttatataaca	gttaaaaaata	aaaccatgag	29580
tactagaata	aaacataggt	ggctctttaa	tcttgggttg	tgaagggtatt	ttttaaaata	29640
agaaaaaagc	aagaaatcac	tgctaaattt	gactattaaa	attaattttat	cacaggcaca	29700
aaaatgttag	aaaactaatg	gcaatagcaa	atatatatat	atgaggattg	gtattctcaa	29760
catataaagc	acatttgcac	atcaacaaga	aaagaatatt	tctcctaata	gaaatagtgg	29820
caaatacatg	agcagtcagt	tgaaaaaaga	agtaatacaa	attgctggct	gggtgtgggt	29880
ggggtcacgc	ctgtaatccc	agcattttaga	ggctgaggct	ggcggatcat	ctgaggtcag	29940
gagttcgaga	ccagcctgac	caacatggag	aaaccctgtc	tctactaaaa	atacaaaatt	30000
agccggatgt	ggtggcgcat	gcctgtaatc	ccagctactt	gggaggctga	ggcaggagaa	30060
ttgcttgagc	ccaggaggcg	gaggttgtgg	tgagtcgaga	tcgcaccatt	gcactccagc	30120
ctgggcaaca	agagcgaaac	tccatctcaa	aaaaaaaaaa	aaaaaaaaaa	aaaaggaagt	30180
aatacaaat	gccataaat	atggaaaaaa	aaaaaggctc	aactttattt	gtaattaaag	30240
gcctttaagt	taaacttagg	tgtcattttaa	tttttattaa	attggcaaat	attaaaaata	30300
agcataatc	ttaagcaact	ctcggtaggt	gggaagaatc	tagctgtagc	ctcaggtgtt	30360
tgtgcctcaa	ggaaaaccct	ctctgggatg	tccattgtct	gaagtcaaag	gttttccaat	30420
ataacctgga	aactattttt	aaaatgctga	tccccatacc	ctcaaaatat	taatagagac	30480
aatcgtgagg	actataataa	agaaatgtgc	aataagctct	gggggcacag	agggaagat	30540
ctatttgctg	aggagttgaa	gaaattgttt	ggacactcag	tattgcctga	gctcaaaact	30600
gaaggatgaa	taaattgccac	atgaccttgg	ggctggggag	taagtagggt	tatgcagaga	30660
gagataactg	aggcttttgg	gcagacgaat	agtaacggct	caggcatggg	agtaaaagtc	30720
atttagagat	ttacaagaat	tcagcatttc	tttctttttc	tttttttttt	ttgagatgga	30780
gtctagctct	gtcatccagg	ctggagtaca	gtggcatgat	ctcagctcac	tataactccc	30840
acctccggg	ttcaagtgat	tctcatgcct	cagcctcccg	agtagctggg	attacaggcg	30900
tgtcctgactg	ctcctggcta	atttttgtat	ttttagtaga	gatgggggtt	caccatgagt	30960
gtcaggctgg	tctccaactg	ctgagctcaa	gtgatattgt	cacctctgct	ccccaaagtg	31020
ctgggattac	aggcgtgagc	cactgtaccc	ggccaagaat	tcagtatttc	tatccaagta	31080
cctgggggat	agatgtgcta	catgaatatt	tattgcattc	atlttgttct	ctgcattttt	31140
tttttttttt	ttggtttgag	atggagtctc	gctctgtcgc	ccaggctgga	gtgcagtcgt	31200
gcaatctcgg	ctcactgcag	cctccacctc	atgggttcaa	gcgattctcc	atcttgggtc	31260
cctgactagc	taggtttaca	ggcgtgtgcc	atcacacca	ctaatttttt	gtatttttag	31320
tagagacagg	gtttcaccat	gttgccagg	ctggtcttga	actcctgate	taaagtgagc	31380
ctccacactt	ggcctcccaa	agtgtctggga	ttacatatgt	gagccactgc	gcctggcctc	31440
tataacttc	tatagtacct	gatacttatt	aggcactcaa	ttacaacata	actttttttt	31500
tttttttttt	ttttgagaca	gagacatgcc	ttgtcgcctg	ggctggagtg	cagtggcaca	31560
gtctcggctc	actgcaacct	tcacctcccg	ggttcaagtg	attctccttc	ctcagcctcc	31620
cgggttagctg	ggattacagg	gcgccgccac	cacgtccagc	taattttttg	tatttttaat	31680
agagatgagg	tttcaccatc	ttggccaggc	tgatctcaa	ctcctgacct	tgtgatccac	31740
tcaccttggc	ctcccaaagt	gctggtatta	caggtgtgag	ccatcatgcc	cggcccatat	31800
ttctaaaaaac	atlttcttat	aaaatgacat	tgccattatc	aacctgcaaa	atacatttcc	31860
atlttggtgt	tttcttgctt	agtcttttaa	tctagagttt	tataccttat	cttttttatt	31920
tatatatttt	ttatgtcatt	gactttttgc	agaaactgaa	gcacttgtcc	tgtagattgt	31980
ccaatattct	agatttgtca	ttttgtttcc	ttgtgatgtc	cttatgctta	tttgtttgtc	32040
cctctttctg	taattagaag	acctagaact	gcactatcct	tagagtagct	actagctcta	32100
tgtagctatt	taaatttaaa	ttaattaaaa	ttgaaaaagt	ttggtggctc	acacctgtaa	32160
tcccagcact	ttgggaggcc	aaggtgggag	gattgcttga	gtgcaggagt	tcaaggcttc	32220

agtaagctac	gattgtactc	tagcctggga	gacatcaaga	ccctgtccct	ttaaggggga	32280
aaaataattg	aaaaaatcaa	aaacttagtt	tccttgtttc	acaagctgca	tagggctaata	32340
ggctaccata	ttggctagca	cagcttatag	aacctttcca	ttgtcacaga	aagttctgtt	32400
tggcagtgcc	gttctcatta	gacctgatcc	gattaaggtc	catctttgtt	gacagagtac	32460
ttcttaggtg	gtgctttgtg	gttcatatga	tgatagcctg	gtctgttcat	tcatatatct	32520
tttcacgaga	aatatTTTTA	ttccattctg	aataaaaattt	catggcagggt	acttgcaaga	32580
agcagttata	atTTTaaagt	TTAACattag	gtTaaaaaat	TGACAGGaaa	catatatcca	32640
caggTaaaac	ttgtacacaa	atgttcatgg	cagcattatt	cataatagcc	aagaagtggga	32700
aacaacccaa	atcaatttat	gaatggataa	aatgttgtat	atttgtagta	catgtaatat	32760
tattcagcca	ataaaatggg	ccaggcatgg	tggctcacac	ctgtaatccc	agcactttga	32820
gaggctcagg	cagggggatc	actagaggtc	aggagtttga	gaccagcctg	accatcatca	32880
cgaaacccctg	tctctactaa	acgtacaaaa	attaggcagg	cgtgggtgatg	cacgcctgta	32940
gtccctacta	ctcagggtggc	tgagtcatga	ggattgcttg	gaccccgagg	gacagaggtt	33000
gcagtgtagct	gagatcatga	cactgcactc	cagcatgggc	aacagagcaa	catcctgcct	33060
caaaaaaaa	aaaaaaaaaa	aaaagaagta	ctgttacatg	gtacaacatg	gatgaacctt	33120
gaaaacattc	tgctaaatga	aggaagacag	acacagaggg	ccacatatatt	tatgattcca	33180
tttatacgaa	atgtccaaaa	ttggcaaatc	taaagagaaa	gtagattagt	ggttgccagg	33240
gagtgaagac	gggttctttc	tggagtgaag	aaaaatgtcct	ggaattcgtg	gttgtagttt	33300
gcaaccttgt	gaatgtataa	ggaccactga	attgtccact	tcaaaagggt	gactttttatg	33360
ttatgtgcat	tatatctaaa	aaaaaaatca	taattaggaa	gcaagattga	cttctaagaa	33420
aaagcggagt	gaaattgttg	ttttgtgggtg	aataaattgg	gtgggtgggt	cgcaagagtt	33480
ttgtgtgatta	gtgattagaa	aaattattca	taatcattga	aaatataaaa	tattttttcta	33540
tatgatgtat	gtaaagaatt	tggcaagaga	tgatgtttgg	aaaaaataaa	gaatggctat	33600
tgtagagatc	ttaaggaaa	aaactacagt	taagtagtgc	tttghtaatca	gaatatgaag	33660
taagtactga	aagtggatgg	agtggctgtt	gtcagcatgt	tatactttat	acatttcatt	33720
cataaatttg	gactgtagat	aaaagtaaac	ttttttttta	tttactcttg	aacaacagtt	33780
tttttttttc	cacttagact	tgcatctgct	ccactgaaca	atacatttaa	ttgttaatta	33840
tttccccctt	caggatgata	catatacaga	aagctacatc	agcacaattg	gtgtggattt	33900
caaaataaga	actatagagt	tagacgggaa	aacaatcaag	cttcaaatag	taagtgaact	33960
ggctagtaat	ttttttgaaa	tttattttgg	taaatttgta	atgtattgtt	attttgtata	34020
tatttactat	gctaacaaaa	ttgaatgtaa	aatgtcttaa	gattcatgta	cttaagatag	34080
aatggtagaa	taagaattac	ttagattaaa	aataatattt	tcaagattac	ttaagcctca	34140
ttgaattttc	tgttcatgaa	gcagagaaac	tcatgtttta	agtcaaaact	ggtcctcatc	34200
tttttctttt	atcagtggaa	atctaagttc	aagtttacct	tgtcctacac	tgcaaatgtt	34260
atagaccatt	tttgtttgtc	ttttactgtg	ctaagtgcac	ggaacattaa	aggaacccta	34320
ggaagagatt	cttcatatgt	ggctcagttg	agagaagta	cttatgtagt	tctaagtatt	34380
tttattagat	agtgtgcacc	aactctgtag	aaacacagaa	ttttgttggg	aaaagggaact	34440
tagtTTTTgt	aacatgttca	ttttactgct	caaaaaaacg	aatgctgaaa	gatttaatga	34500
cttgccctaca	gttactggta	gaaccaagtg	accgaagctc	tgtcttcaat	attttgtgtc	34560
tgtgtgccat	cctatcccc	ttatccatct	ttacaccccc	agcccccaat	taaataatagg	34620
caattataat	agttcagttg	tgccctctca	gtatgggtct	gagtcctgtc	agtgtgggca	34680
tatctgtgggt	cttttaaaaa	ataaatctct	cagtattttt	cagagtaggc	tattagcaag	34740
aagtaggcta	taaacacagg	aaaccagtga	ctgccccctt	tcatgggaact	gatgacacat	34800
ggaattggaa	ggagtcctgc	attaggagtc	agaagactta	gatttgttgt	cttggttcta	34860
gtattttacct	gttagagaat	catgggtttg	tgtctctggg	gaaaaggccg	aagtaaccct	34920
gagacccagt	ttcctttcta	aaatgtgtgt	gatgacacct	gattttactaa	tttataagct	34980
agttgtgaga	accaactgta	atagctttgt	gtatgtgaca	atcgtgtgta	aagccctttg	35040
taaacttttg	ggcagcatat	agatactact	tatgatatga	catgcccaga	taaattgggtg	35100
tttgataggt	taagttgctc	ccttttctta	catgactctg	atgaggaaaa	gaaggatatgt	35160
taacaaaaga	taggtggctg	tggatattga	tataagtaaa	cacacttgat	gtgtcaaat	35220
aggacttgca	aggatttagt	tttcagaaat	agcttgaaat	actttcaatc	agtgaacaaa	35280
ttaccctcca	tattttttcc	cacgatataa	gtacagtctc	aaccttttat	ttggcaccat	35340
aaagagcaca	taaagatcta	cccaaaactg	tacttttaaag	cactgggtatg	gaataattgt	35400
attatgtgtg	atcattgggtg	tttataagat	ttgggtgtgt	attcgtgtgt	gaaacattca	35460
tattttgtta	ctttcctgtg	gctggaaggg	atcttatagg	acactgtctt	tcatctttgt	35520
ctgtctttca	tctttaatag	gaatttcttt	tccatgcctg	aaggcctcat	tttgaacatt	35580
ttgtttgttt	gtttttttat	tttttgagat	acagtattgc	tctgtctccc	aggctggagt	35640

gcagtggcgc	gatttgagct	cactgcaacc	tccgcctcct	gggttcaagt	gatttcctcg	35700
cctcagcctc	cctaatagct	gggattacat	gtgtgtacca	ccatgcccgg	acaatttttt	35760
tttttttgag	atggagcctt	gctttgtcgc	ccaggctgga	gtgccagtgg	tgcaatcttg	35820
gctcgcgtga	gctccgcct	cccaggttca	agcagttctc	ttgcctcagc	ctcctgagta	35880
gctgggatta	caggcgtgcg	ccaccacacc	ctgctaattt	tttgtatttt	tagtagagac	35940
agagtttcac	catgttggtt	aggtctggtc	cgaactcctg	acctcgtgat	ctgcctgact	36000
cggcttccca	aagtgcctgg	attacaggca	tgagccactg	tgcccagcct	tccgataatt	36060
tttgtatttt	tcgtagagat	gggatttcgc	catgttggcc	aggctggtct	caaactcctt	36120
acctcaagtg	atccaccctg	cttggcctcc	caaagtgcgt	ggattacagg	cgtgagccac	36180
cacgcctggg	tttttgaaca	tttttaagaa	gcttaccatt	ttttcgaaat	agctagtctc	36240
attttacaca	taacttcagc	taggcatggt	gcctcatgcc	tgtaatccca	gcactttggg	36300
aggccgaggt	cagagagtca	cttgaggcca	ggagtcaaca	tagctcctgt	gaccagcctg	36360
gtcaacatag	agactctatc	tctacaaaaa	aaaaaaaaaa	aaaaagtaac	caggtgtggt	36420
ggtcctatgc	tgtagtcta	gctccccagg	agactgaggt	gggaggaatg	tttgagccca	36480
ggacttcaag	gctgcagtga	ggcaagattg	caccattgca	ccccagcttt	ggggacagag	36540
tgagagaccc	tgtctcaaaa	acaaaataag	gctgggcgca	gtggctgtcc	gggcgtcgtg	36600
gttcacgctt	atagtcttag	cactttggga	ggccaagggt	ggcagattgc	ctgagctcag	36660
gaggtctaag	accagcctga	gcaacatggc	gaaacctcat	ctttgcaaaa	catacagaaa	36720
aaaacaaaaa	aaaccacaaa	acctctagtt	gccagttatt	ttttttattt	attcctagtg	36780
attcttcttt	ttttcttttt	tctgagacaa	aaatttcact	ttgtctccct	cgctagagtg	36840
cagcggtcag	ctcactacat	gattctttta	gagacatggt	aattctttat	attgagctga	36900
agcctttttc	ttttactctt	gtctcttctt	attcctccgc	cttgtagagc	tgccgcaatc	36960
agattaattc	ctcttttatt	ggcaagcctg	cccttcagat	tgatcttctc	acaacctttc	37020
ttctacctct	gaagtctca	ttctttcctg	taatgatatt	ttcagaacct	tgtgcaattt	37080
gggttattct	tacattttat	aaatgccttt	tattaaattt	gatttcttaa	atcaagtatg	37140
agatataaca	catgaggtaa	atcctgtctt	gatttggagc	ctgaatgaat	ttctctcttg	37200
aacttcaagg	gctcatggcc	ctttcttatt	attaatcaaa	gacaaccatt	tgttgtttca	37260
gtagctatat	tatttctagt	ttgggtctta	agggttttga	tttgcttggt	ttttcttttt	37320
tctttttttt	ttttttgaga	cggagtttcg	ctctgttgct	ccagactggg	agtgcgaatg	37380
cgtgatctcg	gctcactgca	acctccgcct	cccaggttca	agcgattctt	ctgcctcagc	37440
ctccctagta	gcagggatta	caggcatgtg	ccaccacgcc	gggctaattt	tgtattttta	37500
gtagagatgg	ggtttctcca	tggttggtcac	gctggtctcg	aactcccagc	ctcagtgatg	37560
ccgcctgcct	tggcctccca	aagtgcctgg	attacagtcg	tgagccacgg	cgcctggccg	37620
atttgcctgt	ttttaattaa	aatagggggc	ttggccaggt	gcagttgttc	accctgttaa	37680
tcccagtaac	ttgggaggct	gaggcaggca	gatctcttga	gttcaggagt	tcaagaccag	37740
tatggcctac	aagtgtaaac	cctgtctcta	ccaaaaacac	aaaattcagc	caggcgaatg	37800
gggtgtgccc	tgtagttaa	ggtactcagg	aggctgaggt	gggaggattg	cttgagcccg	37860
gagatggagg	ttgcggtgag	ccaagattgt	gccatttgca	ctctagcctg	ggcaacagag	37920
cgagaccttg	tttcaaaaaa	aaaaaagaag	agggtctcac	tttactcttc	tgtgactggg	37980
gttttaaaaa	tctaaacaca	ggccggggcac	ggtggctcac	gcctgtaatc	ccagcacttt	38040
gggaggcaga	ggcacgcaga	tcacaaggtc	aggagtctct	gaccagcctg	gccagcatgg	38100
tgaagcccat	ctctactaaa	aatacaaaaa	aattagctgg	gcatggtggc	agggtgcctg	38160
aatcccagct	acttgggagg	ctgagacagg	ggaatcactt	gaaccacagg	ggcgagattg	38220
gcagtgagcc	aagattgcgc	cattgcactc	cagcctggtg	acagagcgag	actccgtctg	38280
aaaaaaaaaa	aaaaaaaaat	aaacacaaga	ttttactttt	aatcctatca	tttctctctg	38340
cttggtttca	gtaatccttc	aagtttttcta	ggtcttttca	aaatcttgat	tctgttgatt	38400
tatattttaa	ttatcttttc	ctttcagctt	ttcctgttca	ggtgtgacat	ctgggtcttt	38460
atctgagttt	tattagatta	taaaacattc	agcaagatag	ggcaggtaact	gagtccagtt	38520
gtacaccatg	gaaggcctct	ttctgtgatt	gttcattcat	gaggctttat	gaaaatgtct	38580
acattacacc	aggcacttgg	aggtttacaga	gatgaataaa	acatagtcca	ttaggagcca	38640
gacaatggga	gagacaaaaca	tgggaaaaaag	ttactctgat	tatgaggagt	aatgagaatt	38700
acatatgaag	gaaagtattg	ttagtactgt	taggatttag	tgtcaggaaa	gttttcagag	38760
tagcaaggaa	acatcagaaa	ttttactctt	tctgccaggc	atggtgcatg	tattattctg	38820
ttctcacact	gccacaagga	actgacaaaa	actgggtgat	ttattaaaaa	aaaggtttaa	38880
ttgactcata	gttctgcatg	gctgaggagg	cctcagggaa	cttactgtgg	cagaaaggga	38940
agcaggcacg	tcttacatgg	caggaggcga	gagagtgtga	aggaagtga	gggggaagag	39000
ccccttatga	gaccatcaga	tcttgtgaga	attcattcac	tatcactcga	atgggggaaa	39060

ccgtcgtcat aatccaatca cttctccata atccaatcac ttccctcagt gattacaact 39120
 tgagatgaga tttgggtggg gacacagagc caaaccatat cagtgcctgt agtcccagtt 39180
 acttgagggc tgaggcagga ggaacacttg agcccaggag ttcaagatct gcctgggcaa 39240
 catagcaata cctccatttt ggataaaaag gaaattttac tttttgggtg ccattgctta 39300
 gtttaatcag ctgtaacttc ttgttgactt ttagtcaaaa aacaattttt cttcttatct 39360
 ttgtgaaaga ggttggtgag caaggaagaa agggaaactt gctttattga gcagcttcta 39420
 tagtcaggca ctttttaca acattagtct atttaaacc ctttagctgt tgtacaagg 39480
 gaatgctatc tagcattttac agatgaagaa actgtaggt gactctccct aatattaaat 39540
 aaccaggaac ctggatttga tgttttgaag tcagggtagc ttgatcctcg agttcatgct 39600
 tcctccaagg atacactgaa agactttgag cctctttttt tttttttctc tttttttgag 39660
 acaggatctg gctctcttgc ccagagtgcg gtggtgtgat ctgagctcac tgcaacctct 39720
 gcctcctggg ctcaagcgat tctgcctcag cctctcgagt agctgggacc acaggcgac 39780
 gccagcatatc ttggctaatt tttggatttt tagtagagac aggttttcac catgttggtc 39840
 aggtggtct cgaactctg agctcgtaat ccgcccgtct cgccccaca aagtgcctgg 39900
 attacaggcg tgagccaccg acccagtcct aacagttttt taaaaccag aactataatg 39960
 caataatggt agcattttgt ttgggagttt gaggcctaat ggttgaagtg cagtaaatg 40020
 ttcttaaaat acgttttatg aaagtatttg gagtctcttc cttacatttt tttctctagc 40080
 atgaagacaa cacctagcca ggcattggtg ctcatgccag taatgccagc actttgggag 40140
 aatgagttag gataattgct tgagtccagg aatttgagac cagcctgggc aatgtagcga 40200
 gactctgtct ctcaaaaaaa gaaaaaatta gccgggtgtg gtggcatgtg cctgtagtcc 40260
 cagctactca ggaggctcag gtggaaggat tgcttgaggt gggagggtga ggctgcagcg 40320
 agccatgatc atgccactgt actcagcctg gatgacagaa tgagacgctg cttgagaggg 40380
 gaaaaaaaag acacctgctt gggatgatta aagtctctgtc ttgactggta gttatttgaa 40440
 ttaggctcct ccagtgcttt taatcatggt agaattgtct agcaagttag tttgtcttac 40500
 atggaagagt tctgtgttca agggctttcg gccagtggca ttcctaaaca cagtgttaaa 40560
 ggcggtaggg aatgtgaaaa gtatgacata gtctctgtc tcaacagctt gtaattttag 40620
 tattattatc gtaagctcaa ttgtaggtac tacttctttt ctggactttc aggtgcttat 40680
 taccgtgcaa tttagtggta tgagttgagg actaatgttt ctatatcaca tcctgataat 40740
 ctccacagtt atgaaaacta aactatttcc cctccctcct acacttttcc ccaactttat 40800
 tttaatggaa ttgtttggat ttcttgattg ttttgtaata gtgggacaca gcaggccagg 40860
 aaagatttcg aacaatcacc tccagttatt acagaggagc ccatggcatc atagtttgt 40920
 atgatgtgac agatcaggta agttccaaga ggagattgtg ttacagttag caagtaggaa 40980
 gccattatct gattaatgtc agattcatct actacttcat atataagcca tcagtattaa 41040
 ttttatggca gaaaactttg tccactctca aatataaatg tgaatcactt aaaagacatt 41100
 tgttttctcg taataaataa aagattagta attagtttta cgtttgcttt caagggattc 41160
 tggttgtatt tattgtcaac taaataactt tgatcaaata gccaaagact taacatatag 41220
 gcaagagttt gtatgggaatc gtgagttgct tggcttatac tgtgttcttg gtgttaagta 41280
 ttaacaggaa tatggcctgg taattagaac ttgtccatca gaattgccaa aagtgggatt 41340
 cgggggtctc tgcctatgga ggatgtggtt cagaaataaa gaatttgaat aggataagct 41400
 gtaggaggat cttagtatga gaatgagtat ctgaagatta gctgtgagag agggcagagc 41460
 gatggaggga acaatgtggg acagtgtgaa gcatgtgatc caggggccat aactttttt 41520
 gttactatct ttttaaatca gaaacttaga tttcagtgtc ctttctatca aagaaaagga 41580
 caaaagataa acgttcaaaa ttggaattta ttttctttt ggcaaatgtt aaatctcacc 41640
 tctaatagaga aatcatagct aattaggaga taacttacat gtaagcattt agattcagt 41700
 ccattagaag tgctgggtgg gtgatatctg caggagaaaa aaatgatgct agtttaaaaa 41760
 atctctacta ttaccgtgaa atatttttaa atgaaaactt tcgtctctta aatatgactg 41820
 tggaaaagaa aatgagtata ttaataaca tcttttgaca tctctagtag taacagtagg 41880
 tcactctatt cataaacc aaattttacca aatttcaggc caggcgagct ggctcatgcc 41940
 tgtaatccca gaactttggg aggccgaggc gggcggatca cctgaggtca ggagttagag 42000
 actagcctcg ccaacatggc aaaatcccat ctctagtaaa aatacaaaaa ttagccaggc 42060
 gtggggggcc gtgcctgtaa tcttagccac ttgggaggct gagacaggag aatcgcttga 42120
 acccagcggg cagaggttgc agtgagccga gatcgcgcca ttgcactcca gcctggatga 42180
 cagaacaaga ctttgtctca aaaaaaaaaa aaaaaaaaaa aaaaaaatta atcaaatctc 42240
 aaaaccagg tttgtagtac atttaaatg catattccaa agcagttggg tttgcctgcg 42300
 ttgcagttta atattaagct atacttccct ttcaaataag gtattttcat cgttaagcct 42360
 gtaaatctta gtttgtcatt gtttagatat ttatagtc atttaatatat ctgtttacgg 42420
 ccagctgcaa tggctaacac ctgtaaactc agcacttttt gaggccaagg tgggccgatt 42480

gagctcagga	gttcgagacc	agcctgggca	acatagtga	actccatcta	tacaaaaaat	42540
ccaaaaaaa	aaagacaggt	gtgggtggcat	gtgcctgtag	tcccagctat	cccggaggcg	42600
gaggcgggag	gatggcttga	gcttgggagg	tcgaggggtgc	agtgagctgt	gatttgtgcca	42660
ctgcactccg	gcctaggtga	cagagcaaga	ccctgtctca	aaaaaaaaa	tctcttcact	42720
ccttagcagt	ggttattttg	tagctagagt	tgtctcacta	gctctttgtt	at ttgtctgt	42780
taggtcagga	acgatgtttc	tgtttattcc	agaactatat	tatcgaacta	tattatcagt	42840
ctttcaaatg	tcttttttagg	agtccttcaa	taatgttaaa	cagtggctgc	aggaaataga	42900
tcgttatgcc	agtgaaaatg	tcaacaaatt	gttggtaggg	aacaaatgtg	atctgaccac	42960
aaagaaagta	gtagactaca	caacagcgaa	ggtagttta	aagtttaatt	ttcatactga	43020
at ttgaaggt	gttgaattat	gtatgggttc	tgcagtaaca	gtaaggccac	agccttttaa	43080
aaatatgtgc	actagaatac	tgtgacagtg	acaatttggtg	tagcatctgt	ttggatccaa	43140
tgaacttagt	tcctcacgct	ccattatgga	tggtagaaat	gcagtaagaa	ttagtgaaaa	43200
agat ttttca	gtgttaattg	tgccctatta	ttctcttagg	aatttgctga	ttcccttgga	43260
at tccg tttt	tggaaccag	tgctaagaat	gcaacgaatg	tagaacagtc	tttcatgacg	43320
at tgcagctt	agattaaaaa	gcgaatgggt	cccggagcaa	cagctgggtg	tgctgagaag	43380
tccaatgtta	aaattcagag	cactccagtc	aagcagtcag	gtggagggtg	ctgctaaaaat	43440
ttgcctccat	ccttttctca	cagcaatgaa	tttgcaatct	gaacccaagt	gaaaaaacia	43500
aattgcctga	attgtactgt	atgtagctgc	actacaacag	attcttaccg	tctccacaaa	43560
ggtcagagat	tgtaaatggt	caatactgac	ttttttttta	ttcccttgac	tcaagacagc	43620
taacttcatt	ttcagaactg	ttttaaacct	ttgtgtgctg	gtttataaaa	taatgtgtgt	43680
aatccttggt	gctttcctga	taccagactg	tttcccggtg	ttggttagaa	tatat tttgt	43740
tttgattgtt	atattggcat	gtttagatgt	caggttttagt	cttctgaaga	tgaagttcag	43800
ccatttttga	tcaaacagca	caagcagtg	ctgtcacttt	ccatgcataa	agtttagtga	43860
gatgttatat	gtaagatctg	at ttgctagt	tcttccttgt	agagttataa	atggaaagat	43920
tacactatct	gattaatagt	ttcttcatac	tctgcatata	at ttgtggct	gcagaatatt	43980
gtaatttggt	gcacactatg	taacaaaaca	actgaagata	tgtttaataa	atattgtact	44040
tattggaagt	aatatcaaac	tgtatgggtga	taagtattgt	tttgattctt	atgggttaaag	44100
ggaaatagag	ccttgacatta	tattcaacac	agccatttgt	gtgtgcacaa	tgcaactata	44160
ggtattctgt	acattatctta	gagcagcatc	cagttatttgc	tttctagata	atatgcccac	44220
taacatgacc	tagaggggct	tctgtgctgt	gtagggattt	aaccaacttc	agtgggttcag	44280
ggagctcaaa	ctatatgtaa	aacaagttta	gaatgtatgc	tatctagccc	gttatctctg	44340
atccttctct	aaaaccattt	gaaatagctt	cattgatcaa	catttcataa	atgcactctgt	44400
ggtagaggta	gaaagcagca	cctttcctaa	ttggcaaatg	atcagactaa	tgtgtgctaa	44460
tgtttttctt	ccatgctttc	agtcagattc	aactatttta	tcctccacag	ttgcttaact	44520
tggtgttgga	ggagggttta	agcattaaga	taggaagcag	gaaatttgat	tgctctaaat	44580
ttagaaatta	tatccctaaa	aattaaaaca	tgaatactgg	gtggtaatga	taattgagcg	44640
aaatgtat t	at ttgtgtga	cattttgcat	atatgaagat	tttctgaaat	aggaccttca	44700
agatcctagg	gggttttggt	tggtttttta	ttgtgaggaa	taaaaaatct	tctgcccaca	44760
ctggcatttt	aagggtgactg	aggtcaaacg	ttgtttcctt	aggttgaaat	agcagccaaa	44820
acattcttca	cgcaggggct	tgggatatgg	ctgctggcaa	cacattttgt	tgtgggctcc	44880
ttaatttaat	gataaaattt	aagctaaaaca	caagccaaaa	atgaataggt	tttttttaatt	44940
tttatttttc	actaaacagg	caattgaaat	acatgggtaca	aaaaataagt	gtaagataat	45000
tgtaaaatga	aatggacaga	atattcaatt	ttccatctat	gaaaatttca	caataaaaaat	45060
catagtttac	tttgatttat	aggcgtgctt	ggtggatcta	ttcatcctca	cataaggcaa	45120
ctgacaaaat	cctgaagtta	ccaatagtta	ttttggtgaa	gatctttaat	gcttcagaag	45180
ttttgttttt	gccttaatac	agtataaagg	gggaaagagt	tcagaaacta	ttttctaaag	45240
tagctaaatg	acacaaaaca	aatgtcaaga	tactgtgatg	ccatgccgtg	cacttcattt	45300
ttacacagta	aaagttgttt	aaattgtcag	cttattcttg	gtgagttagc	ggaaacatta	45360
catgaactta	agatgagcat	at ttacagac	ttaagtttgg	aaaattccag	cgttcttttc	45420
cccattggcag	taaagattgg	gatttacaac	aaatttcagc	atgccttaag	at ttgcttct	45480
atgtatacgc	caataaatgt	ggttctggaa	aaaatatata	cccctttata	ccccattttt	45540
caagtacaaa	cggttcaaag	ctactacagg	ttttaataat	ctgttcactt	agtaaaggga	45600
attaccactt	gttctaaata	taagggtgctg	ccataaatta	gtttacatag	tgaagaagag	45660
tgtctttaa	tctaagcagc	tgcacactct	gtgaaatcct	ttcagaatga	tagtcattgt	45720
ggtctgagca	gtaatttctt	attcttcgac	c ttggattga	at ttccctta	gcctacatct	45780
tgccctttcca	gcatacttta	cctcaaacct	tctttgtgtt	ccattcccac	ctaagcttca	45840
aaatagccct	gtgttgacgt	cgtcttccat	ttgctgagct	tacctatgga	tctccaagaa	45900

cccagatctt gaaactgctg atccagcttt gagtatcatc acttcctgt ggatttaact 45960
 tccattaatt ttaagggaact actaagttat tccagtgtgg catcacagtg cagtttagcaa 46020
 gctcagctac ttgactctaa ttggccatg 46050

<210> 4
 <211> 222
 <212> PRT
 <213> Homo sapiens

<400> 4
 Gly Gly Cys Gly Ser Lys Gly Gly Gly Gly Gly Gly Gly Ser Cys Ser
 1 5 10 15
 Asp Met Ser Ser Met Asn Pro Glu Tyr Asp Tyr Leu Phe Lys Leu Leu
 20 25 30
 Leu Ile Gly Asp Ser Gly Val Gly Lys Ser Cys Leu Leu Leu Arg Phe
 35 40 45
 Ala Asp Asp Thr Tyr Thr Glu Ser Tyr Ile Ser Thr Ile Gly Val Asp
 50 55 60
 Phe Lys Ile Arg Thr Ile Glu Leu Asp Gly Lys Thr Ile Lys Leu Gln
 65 70 75 80
 Ile Trp Asp Thr Ala Gly Gln Glu Arg Phe Arg Thr Ile Thr Ser Ser
 85 90 95
 Tyr Tyr Arg Gly Ala His Gly Ile Ile Val Val Tyr Asp Val Thr Asp
 100 105 110
 Gln Glu Ser Phe Asn Asn Val Lys Gln Trp Leu Gln Glu Ile Asp Arg
 115 120 125
 Tyr Ala Ser Glu Asn Val Asn Lys Leu Leu Val Gly Asn Lys Cys Asp
 130 135 140
 Leu Thr Thr Lys Lys Val Val Asp Tyr Thr Thr Ala Lys Glu Phe Ala
 145 150 155 160
 Asp Ser Leu Gly Ile Pro Phe Leu Glu Thr Ser Ala Lys Asn Ala Thr
 165 170 175
 Asn Val Glu Gln Ser Phe Met Thr Met Ala Ala Glu Ile Lys Lys Arg
 180 185 190
 Met Gly Pro Gly Ala Thr Ala Gly Gly Ala Glu Lys Ser Asn Val Lys
 195 200 205
 Ile Gln Ser Thr Pro Val Lys Gln Ser Gly Gly Gly Cys Cys
 210 215 220

<210> 5
 <211> 190
 <212> PRT
 <213> Homo sapiens

<400> 5
 Gly Gly Cys Gly Ser Lys Gly Gly Gly Gly Gly Gly Gly Ser Cys Ser
 1 5 10 15
 Asp Met Ser Ser Met Asn Pro Glu Tyr Asp Tyr Leu Phe Lys Leu Leu
 20 25 30
 Leu Ile Gly Asp Ser Gly Val Gly Lys Ser Cys Leu Leu Leu Arg Phe
 35 40 45
 Ala Asp Asp Thr Tyr Thr Glu Ser Tyr Ile Ser Thr Ile Gly Val Asp
 50 55 60
 Phe Lys Ile Arg Thr Ile Glu Leu Asp Gly Lys Thr Ile Lys Leu Gln
 65 70 75 80
 Ile Glu Ser Phe Asn Asn Val Lys Gln Trp Leu Gln Glu Ile Asp Arg

				85					90					95			
Tyr	Ala	Ser	Glu	Asn	Val	Asn	Lys	Leu	Leu	Val	Gly	Asn	Lys	Cys	Asp		
			100					105					110				
Leu	Thr	Thr	Lys	Lys	Val	Val	Asp	Tyr	Thr	Thr	Ala	Lys	Glu	Phe	Ala		
		115					120					125					
Asp	Ser	Leu	Gly	Ile	Pro	Phe	Leu	Glu	Thr	Ser	Ala	Lys	Asn	Ala	Thr		
	130					135				140							
Asn	Val	Glu	Gln	Ser	Phe	Met	Thr	Met	Ala	Ala	Glu	Ile	Lys	Lys	Arg		
145				150					155						160		
Met	Gly	Pro	Gly	Ala	Thr	Ala	Gly	Gly	Ala	Glu	Lys	Ser	Asn	Val	Lys		
			165				170							175			
Ile	Gln	Ser	Thr	Pro	Val	Lys	Gln	Ser	Gly	Gly	Gly	Cys	Cys				
		180					185						190				

<210> 6
 <211> 4
 <212> PRT
 <213> Homo sapiens

<400> 6
 Asn Ala Thr Asn
 1

<210> 7
 <211> 4
 <212> PRT
 <213> Homo sapiens

<400> 7
 Thr Tyr Thr Glu
 1

<210> 8
 <211> 4
 <212> PRT
 <213> Homo sapiens

<400> 8
 Thr Ala Lys Glu
 1

<210> 9
 <211> 4
 <212> PRT
 <213> Homo sapiens

<400> 9
 Thr Asn Val Glu
 1

<210> 10
 <211> 7

<212> PRT
<213> Homo sapiens

<400> 10
Arg Phe Ala Asp Asp Thr Tyr
1 5

<210> 11
<211> 6
<212> PRT
<213> Homo sapiens

<400> 11
Gly Val Gly Lys Ser Cys
1 5

<210> 12
<211> 6
<212> PRT
<213> Homo sapiens

<400> 12
Gly Ala Thr Ala Gly Gly
1 5

<210> 13
<211> 6
<212> PRT
<213> Homo sapiens

<400> 13
Gly Ala Glu Lys Ser Asn
1 5

<210> 14
<211> 8
<212> PRT
<213> Homo sapiens

<400> 14
Gly Asp Ser Gly Val Gly Lys Ser
1 5

<210> 15
<211> 14
<212> PRT
<213> Homo sapiens

<400> 15
Leu Leu Leu Ile Gly Asp Ser Gly Val Gly Lys Ser Cys Leu
1 5 10

<210> 16
 <211> 601
 <212> DNA
 <213> Homo sapiens

<220>
 <221> variation
 <222> (301)...(301)
 <223> 't' may be either present or absent

<400> 16
 tgctctgtcg cccaggctgg agtgcagtgg cctctcggcc cactgtagcc tccgcctccc 60
 gggttcaagc aattttcctg cctcagcctc ccgagtagct gggattacag gcacgcgcca 120
 ccatgcctgg ctaatttttg tatttttagt agagacagtg ttccaccatg ttggccaggc 180
 tggctctgaa ttccctgacct cgtgatctgt ccgttttggc ctctcaaatt cctgagatta 240
 caggcatgag ccaccgagcc tggccagttt tctgagtttt tatttgaaat caaaataagc 300
 tttttttttt tttttaatgg gctttagagt ccagggtaac gaacactttt tgggtgcctat 360
 tactgaacca ttcagggtat tccctggggtg gtgaccgtgt tcatttcaga aaccaacatg 420
 ttcatttcag aaaccaaaact cgggtaactt ttgataagtt catcaactaa ggcccatggc 480
 agaatttgag ggctaagggg tgtaattagt gtatgggtag aaataagtgc cttcttttcta 540
 tattttggcg ttgtaggaat ttaaagtgat tctgcagtaa gtctcaggag acaattttct 600
 t 601

<210> 17
 <211> 601
 <212> DNA
 <213> Homo sapiens

<400> 17
 gctgattgtg ttctagggga cggagtaggg gaagacgttt gctctcccgg aacagcctat 60
 ctcatctcctt tctttcgatt acccgtggcg cggagagtca gggcggcggc tgcggcagca 120
 agggcggcgg tggcggcggc ggcagctgca gtgacatgtc cagcatgaat cccgaatagt 180
 gagttcagga gagcaccggg cggctgggtc cgtgggccag cttgggggat cttaaagggg 240
 tcgaggaggg ttggggcaga agtcggggca tcggctgggg tgaggcgagg gtgatgggtc 300
 rggagaggct ggcggccggg agtcgggcc cttgtctga cgcggagggg cggccgcgcg 360
 ggggaggggt cgggcccggg gggtagccg cccgggcctg gaccgggtca ggttagaggg 420
 cctgactgcg gggcgggtgc tgaggaagcc tgccgagggg cctggggcgg tgtgaagggg 480
 tatcttctct cggaggcagt gacttttgaa ggaggacttg tctctaaggg gaggggatgg 540
 ggtgggagag cccttctaga gggcactgtc agaccctgcg cccgcactct gcggagctgt 600
 c 601

<210> 18
 <211> 601
 <212> DNA
 <213> Homo sapiens

<400> 18
 ctgggaactg gtgttcaact cccttgggta gagtttgttg ggctctctc aatggccctt 60
 taataatttc ctctacagt ttacatgcatg taaagtaatg aataattgga agagaccgaa 120
 ttggtattcc ttttcagtgt caaaggcctt tgagggatgg gggaaaatca gtatttgttg 180
 taaaagttga gtttatttgc tggtttggtc aattactgct agacattttc ccctaaaagg 240
 tccaccacc agtttagctg actgtcatat gtgtgtcaca tggctcttgc aaaatgctta 300
 maagttttgt aatagtgtgg cttgaagctg aaatctttt cactaaacag aaaccgtagt 360
 attttattag aatttcatgc tttagaagtt gagggtagtg ttctttagtg gacatttgct 420
 gtgttgacag tttaaaaaaa ttttttttcc aagggtcca aggacaaagt tggttttgca 480
 cagttgaacg gaggtgaact tgaggttctt aatttagtag ttttcttggg aacaataaag 540

aacatggatt tactgcttta tcgaggttta tagacctcta ctgttcagga aattttctga 600
a 601

<210> 19
<211> 601
<212> DNA
<213> Homo sapiens

<220>
<221> variation
<222> (301)...(301)
<223> 'a' may be either present or absent

<400> 19
tttcagcaca ttaagaaatg cttaacatgg ccaggcgcag tggctcacgc ctgtaattct 60
cagcactttg ggaggccgag gtgggcggat catTTgaggt catgaccagc ctggccaaca 120
tgatgagaca ctgcctctac taaaaatata aaaattagct ggggtgtggg gtgcacgcct 180
gtaattccag ctactcagga acctgaggca ggagagtcac ttgaacctgg gaggcggagg 240
ctgcagttag tccagatcat gccactgcac tccagcctga gggacagagt gagactcctc 300
aaaaaaaaaa aaaaaaaaaa aaagaaatac ttaacattat tctcgtgatt attctcataa 360
catttttcat aatccactgg cttccagtgg atttttttag tgtcaagaaa ataattttga 420
ttggttcatc ttttaaggaat gtgttaagaa taaagcatgt ctacctgtct tcagtatacc 480
agctaactat agtaggaaga aatatagttag tctacttaga tcaactataa ttctttaatg 540
cagaaaaagt ttaaagtatt taccttattt ttagcccca tccccttaag tatatcatgg 600
c 601

<210> 20
<211> 601
<212> DNA
<213> Homo sapiens

<220>
<221> variation
<222> (301)...(301)
<223> 't' may be either present or absent

<400> 20
agaccggcct ggccaatgtg gtgaaaccct gcctctacta aaaacaccaa attagctagg 60
cgtggtggtg tgcgcttgta gtccaagct actgaggagg ctgagacaag agaatcgctt 120
gaatctggga aaaagagggt gccgtgagcc aagattggcc actgcactcc agcctgggtg 180
acagagttag attctgtctc aaaaaataaa aaaataaaaa tttccccctt taatcaaatt 240
aagttaaaat gagggatggt agacagtttt taaccatcaa atatttttag ttagtttttt 300
ttttttaacg ttgtcttaaa gatggaagtg cttcaaaatc aaatcttcct tgccagttct 360
ctacttggct tctttttttt tcttttttag atagagtctc actttgtcac tggagtgcgt 420
tggcgtgatc tcggctcact gcaacctccg cttccaggt ttaagttagt cttccacctc 480
agcctctcaa gtagctggga gtacaggtgt gtgccaccac acccggctaa tttttgtagt 540
tttagtagag acagggtttc actatgttgg ccaggctggc ctcaaactcc tgacctcgtg 600
a 601

<210> 21
<211> 601
<212> DNA
<213> Homo sapiens

<400> 21
ctgaggaggc tgagacaaga gaatcgcttg aatctgggaa aaagagggtg ccgtgagcca 60
agattggcca ctgcactcca gcctgggtga cagagtgaga ttctgtctca aaaaaataaa 120

```

aaataaaaaat ttcccccttt aatcaaatta agttaaatag agggatgtta gacagttttt 180
aaccatcaaa tattttagtt tagttttttt tttttaacgt tgtcttaaag atggaagtgc 240
ttcaaaaatca aatcttcctt gccagttctc tacttggtt cttttttttt ctttttgaga 300
yagagtctca ctttgtcact ggagtgcgtt ggcgtgatct cggtcactg caacctccgc 360
cttcagggtt taagtgattc ttccacctca gcctctcaag tagctgggag tacagggtgtg 420
tgccaccaca cccggctaata tttttagatt ttagtagaga cagggtttca ctatgttggc 480
caggctgggc tcaaaactct gacctcgtga tccaccacc tcagccaaat tgctgggatt 540
acttgtgtga gccacgcgcc tggcttctac ttggctttta aagggaattt tgctttctga 600
g 601

```

```

<210> 22
<211> 601
<212> DNA
<213> Homo sapiens

```

```

<400> 22
gttacattta acccatttat ggtcgtgtag ccatactcac gttacatttg atgcatctgc 60
tccctttgtg tctatatact cataataacat tttgcataaa gttataggca gttcacacca 120
aggctgttca tgaacctcag attaagaata cttgatttag gagattgaaa acagaaaaga 180
gaatgttaac tatcattatc aatattaaaa tgtgaaaatc tgagagtgc aaagcttagc 240
tttaaatctg gtatcccaaa ctcatcttag tttttttttt tttttttttt tttttgagac 300
raggtgtcgc tttgtccccc aggctggagt gtagtggtgt gatcttggct cactgcaacc 360
tccacctccc aggttcaagt gattctctcg cctcagcctc tgaagttgct gggattacag 420
gctgcgccac cagcccagc taattttttg tatttatagt aaagacggag tttcacctta 480
ttggccaggc tgggtctcaa ctctgatct tgtgatcctc ccgcctcggc ctoccaaagt 540
gctgggatta caggtgtgag ccactgttcc cggcctaatt tgagttttta aatgtggagt 600
t 601

```

```

<210> 23
<211> 601
<212> DNA
<213> Homo sapiens

```

```

<400> 23
tgttcatgaa cctcagatta agaatacttg atttaggaga ttgaaaacag aaaagagaat 60
gttaactatc attatcaata ttaaaatgtg aaaatctgag agtgacaaaag cttagcttta 120
aatctggtat cccaaactca tttgagtttt tttttttttt tttttttttt tgagacaagg 180
tgctcgtttg tccccaggc tggagtgtag tgggtgtgatc ttggctcact gcaacctcca 240
cctcccagg tcaagtgatt ctctgcctc agcctctgaa gttgctggga ttacaggctg 300
ygccaccacg ccagctaat tttttgtatt tatagtaaaag acggagtttc accttattgg 360
ccaggctggt ctcaaaactc tgatcttgtg atcctcccgc ctccggcctcc caaagtgtg 420
ggattacagg tgtgagccac tgttcccggc ctaatttgag ttttaaaatg tggagtttaa 480
gatgttagtc ttaaaagtggg ttagatgaaa tttataaaaa tagtcaaata gctaaattta 540
taaaaggcca tttgaaacaa ttttgtgaaa tatataatgt ggataattat gtagtgcttt 600
a 601

```

```

<210> 24
<211> 601
<212> DNA
<213> Homo sapiens

```

```

<400> 24
taagaatact tgatttagga gattgaaaac agaaaagaga atgttaacta tcattatcaa 60
tattaaaatg tgaaaatctg agagtgacaa agcttagctt taaatctggt atcccaaaact 120
catttgagtt tttttttttt tttttttttt tttgagacaa ggtgtcgtt tgccccccag 180
gctggagtgt agtgggtgtg tcttggtcga ctgcaacctc cacctcccag gttcaagtga 240
ttctcctgcc tcagcctctg aagttgctgg gattacaggc tgcgccacca cgcccagcta 300

```

```

rttttttgta tttatagtaa agacggagtt tcaccttatt ggccaggctg gtctcaaact 360
cctgatcttg tgatcctccc gcctcggcct cccaaagtgc tgggattaca ggtgtgagcc 420
actgttcccg gcctaatttg agttttaaaa tgtggagttt aagatgttag tcttaaagtg 480
gggttagatga aatttataaa aatagtcaaa tagctaaatt tataaaaggc catttgaaac 540
aattttgtga aatatataat gtggataatt atgtagtgtc ttatgtgtag attggtggtt 600
a                                                                                   601

```

```

<210> 25
<211> 601
<212> DNA
<213> Homo sapiens

```

```

<400> 25
catggtagtg tgcacctgta gtcccaacca cttgggagggc tgagggtggga ggattgcctg 60
aggccaggag tttgagacct gggcagcata tgaagaccct gtctctaaaa aactaaaaat 120
aaaaaatagc caggtgtggt tgggtgtgctt gtggtcccag ctactcaaga ggctgaggca 180
agagggttgc ttgagcccag aagtggaggc ctgccgtgaa ctgtgattgc accactgcac 240
ttcagcctgg gtgacatagc aagaccctgt ctctgtggtg gtggtgggtg ggggtggggg 300
magggattta agaagggttt gtgaggtagt tattatttat aaatgggctt ttaactttac 360
ccttcacatc ttgggttgaa attaatgtta tccattctca gtttttctgt cttgctatat 420
atttaaactt ggagacttag aggtcatgga tgtctttcta tgaaaagcaa atgaagcaga 480
gggctgcctt ctcttgctgt agagggcaca cttgctgcag agcatgttac tgttttatgc 540
attgctaggc tttgggagtt gtgacttgta tgatcatagt acttacaact attagttggc 600
a                                                                                   601

```

```

<210> 26
<211> 601
<212> DNA
<213> Homo sapiens

```

```

<400> 26
caccacaga tagctatgtc aaacgtaagg gtggagaaac acagacccca aacttctcga 60
gggtagaaaa tatgagggtta tagtagatta gaactacaaa aagctagagg aagttctgaa 120
ctggaaacag tggataggat ttactagaat aatttacgag ggtgacaatt gtaaactctc 180
ataggtttct tttttttcct ttctcttttt ttttttttga gatggagtct cgctctgttg 240
cccaggctgg agtgcaatgg cgcagtctct cctcactgca acctccgctt cctgggtcca 300
rgtgattctc ctgccttagc cacccaagta gctgggatta caggcatctg ccaccatgct 360
gagctaattt ttgtattttt ttttttagta gagacggggg ttcaccatgt tggtcaggct 420
ggctcttgaa tcctgacctc aggtaatcca cccaccttgg cctcccaaag tgctgggatt 480
acagggtgta gccaccgcgc ccagccaaat ttttattggt ttctaaacta gcgtaattta 540
gtttttttca ctttaagtcaa aattatatta ttgtaggata aaaacttagt gatccaaatt 600
c                                                                                   601

```

```

<210> 27
<211> 601
<212> DNA
<213> Homo sapiens

```

```

<400> 27
atccaaattc atgaggaatg aagaataaat acattttaag tcttaccatt tgctaaatta 60
gtcttggtgc tttgtaccaa aattctgtcc ttgtgctctg taattttata tttgtatatt 120
ttctatcaac atttttactg tgtggtgttt tgtaaattat aaaaacgttt taaagcaaac 180
tcagaacaat gaattctcac gaatattcag tatatttaca gttgagaaat aaactacttc 240
tgtagtaggt aatttataat gtcccaatgc aagttaacgt gtcactgatc acgctattca 300
rgtgtgtgtc tttgataagg ggagggtggg aagtttgtgg gtttgatttt atttgccttt 360
ctcatgtgac tgttgtcatg ttagtaaaaca aatggtttgc gagagaacca gtagtctttt 420
gcaaagattg tcttatacag agcactcaat tcttcatatt atttataatg gctttaattt 480

```

```

aagccttaaa ttattagaaa ctcataaata atttttttat ttgttttttt gagatggagt 540
ttcgccctta ttgtccaggc tgaagtacaa tgatgtgatc ttgactcact gcaacctccg 600
c                                                                 601

```

```

<210> 28
<211> 601
<212> DNA
<213> Homo sapiens

```

```

<400> 28
gcttaagcca tgcattgggt ttataggaga tgtagtcttc acagtgagtt gttatttgta 60
gctgtgtttt tggttttgta tagcttatag caatgcagtg tgctttttat taacatcatt 120
ttctttttct ttttgcagtg attatttatt caagttactt ctgattggcg actcaggggt 180
tggaagagtc tgccttcttc ttagggttgc agtaagttga aattgaaatg tctttacaat 240
taatgggtaca attaatgcta tgtatgtttt ctaggtagat aaaattaaac agttttattc 300
mgaataagtt aattcttcca gaatttatat atttaaagac tccaaatata catccccagt 360
gggtatcttg actgttaaat agaaaaatat tggtgctctt aaaagaaatt cagtgaagtc 420
tggttataaa gtcagaatgt ctaatacttt tggtcagagt caaacagcag ttccaatata 480
ggcagcaagt taaaggggta gttggtggcc tgtgttgaaa gcgacttgat gaaaataaat 540
ctttaaatta aacttttagta gaataaaaag aaaaagcaga gccaggtgac gcagtggatc 600
a                                                                 601

```

```

<210> 29
<211> 601
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> variation
<222> (301)...(301)
<223> 'a' may be either present or absent

```

```

<400> 29
ctttaaatTT agcatgtttc ctggccaggT gcggTgggtc acgcctgtaa tcccagcact 60
ttgggaggcc gagacgggcg gatcacaagg tcaagagatt gagaccatcc tggctaacac 120
ggTgaaaccc cgtctctact aaaaatacaa aaaatcagct gggTgtggTg ccacacgcct 180
gtagtcccg ctactcgga ggctgaggca ggagaatcgc ttgaaccag gaggcgagg 240
ttgcagtga ctgagatggt gccactgcac tccagcctgg caacagagca agactgtctc 300
aaaaaaaaaa gaaaaaaaaat aaaaaaaca attagcatgt ttcccttcta gagatcattg 360
tttctcagag catggacca agactcctgg gggTtacc aa gacctctca ggtagcccat 420
gaggTcaaaa tctcctaata atactaagat gttagtattt gtaaggaaat atttacttg 480
taataatact aatataaaa atgtttgcgt ttttcagtga tgacattggc tctgggtaca 540
aagcatgtgg gtaaaattgc tgctggcttg gtacacatca aggcagcgct aagctccaaa 600
t                                                                 601

```

```

<210> 30
<211> 601
<212> DNA
<213> Homo sapiens

```

```

<400> 30
gatgtttgcg tttttcagtg atgacattgg ctctgtgata aaagcatgtg ggtaaaattg 60
ctgctggctt ggtacacatc aaggcagcgc taagctcaa attgtactca tggTgatggc 120
attctttacc tctgtgccct cacaggaaca aaaacaagcc gtgccatttt tattgaagat 180
tgtccttgac aaacagtt aaatgattaa tttttgaaaa atgttgatcc atgagtattc 240
ctttaaaaat atttgtgaag aaatgggaag ttcacataaa acaatgtttt ttttttgttt 300
kttttttttt ttttttttga gacagattct ggctgtgttg ccaaggctag agtgcagtg 360

```

```

cgtctggctc ccaggctcaa gctgttctcc cacttcagcc tcccaagtgg ctgggacctc 420
ccaagtggat gcgccatcat gcctggctga tttttgtatt tttttgtagt gacaaggctc 480
cactgtgttg cacaggctgg tctcaaactt ctgagctcaa gcgatgcatg tgcctcagcc 540
tcccaaagtg ctggagaaag cactttttac tgcatactgg ctagtgtgtt ggttattttg 600
g 601

```

```

<210> 31
<211> 601
<212> DNA
<213> Homo sapiens

```

```

<400> 31
ctgcattttt tttttttttt ttggtttgag atggagtctc gctctgtcgc ccaggctgga 60
gtgcagtcgt gcaatctcgg ctcaactgcag cctccacctc atgggttcaa gcgattctcc 120
atcttggctc cctgactagc taggtttaca ggcgtgtgcc atcacacca ctaatttttt 180
gtatttttag tagagacagg gtttcacatg ttggccagg ctggtcttga actcctgac 240
taaagtgagc ctcccacctt ggctcccaa agtgctggga ttacatatgt gagccactgc 300
bcctggcctc tatatacttc tatagtacct gatacttatt aggcactcaa ttacaacata 360
actttttttt tttttttttt ttttgagaca gagacatgcc ttgtcgcctg ggctggagtg 420
cagtggcaca gtctcggctc actgcaacct tcacctcccg ggttcaagtg attctccttc 480
ctcagcctcc cgggtagctg ggattacagg cgcccgccac cacgtccagc taattttttg 540
tatttttaat agagatgagg tttcaccatc ttggccaggc tgatctcaa ctcctgacct 600
t 601

```

```

<210> 32
<211> 601
<212> DNA
<213> Homo sapiens

```

```

<400> 32
atgtgtgata attggtgttt ataagatttg ggtgtgtatt cgtgtgtgaa acattcatat 60
tttgttactt tcctgtggct ggaagggatc ttataggaca ctgtctttca tctttgtctg 120
tctttcatct ttaataggaa tttcttttcc atgcctgaag gcctcatttt gaacattttg 180
tttgtttgtt tttttatttt ttgagataca gtattgctct gtctcccagg ctggagtgca 240
gtggcgcgat ttgagctcac tgcaacctcc gcctcctggg ttcaagtgat tctcctgcct 300
yagcctccct aatagctggg attacatgtg tgtaccacca tgcccggaca attttttttt 360
ttttgagatg gagccttgct ttgtcgccca ggctggagtg ccagtgggtc aatcttggct 420
cgctgcagcc tccgcctccc aggttcaagc agttctcttg cctcagcctc ctgagtagct 480
gggattacag gcgtgcgcca ccacacctg ctaatttttt gtatttttag tagagacaga 540
gtttcaccat gttgggttag ctggtctcga actcctgacc tcgtgatctg cctgactcgg 600
c 601

```

```

<210> 33
<211> 601
<212> DNA
<213> Homo sapiens

```

```

<400> 33
gatttgggtg tgtattcgtg tgtgaaacat tcatattttg ttactttcct gtggctggaa 60
gggatcttat aggacactgt ctttcatctt tgtctgtctt tcatctttaa taggaatttc 120
ttttccatgc ctgaaggcct ctttttgaa attttgtttg tttgtttttt ttttttttga 180
gatacagtat tgctctgtct ccaggctgg agtgacagtg cgcgatttga gctcactgca 240
acctccgcct cctgggttca agtgattctc ctgcctcagc ctccctaata gctgggatta 300
yatgtgtgta ccaccatgcc cggacaattt tttttttttt gagatggagc cttgctttgt 360
cgcccaggct ggagtgccag tggtgcaatc ttggctcgtc gcagcctccg cctcccaggt 420
tcaagcagtt ctcttgctc agcctcctga gtagctggga ttacaggcgt gcgccaccac 480
acctgctaa ttttttgtat ttttagtaga gacagagttt caccatgttg gttaggctgg 540

```


tctcgaactc ctgacctcgt gatctgcctg actcggcttc ccaaagtgcg gggattacag 600
g 601

<210> 34

<211> 601

<212> DNA

<213> Homo sapiens

<400> 34

aaaaaaaaa aaaaaagtaa ccagggtgtgg tgggtccatgc ctgtagtcct agctccccag 60
gagactgagg tgggaggaat gtttgagccc aggacttcaa ggctgcagtg aggcaagatt 120
gcaccattgc accccagctt tggggacaga gtgagagacc ctgtctcaaa aacaaaataa 180
ggctgggctg agtggctgtc cgggcgtcgt gggtcacgct tatagtctta gcactttggg 240
aggccaaggt gggcagattg cctgagctca ggaggtctaa gaccagcctg agcaacatgg 300
ygaaacctca tctttgcaaa acatacagaa aaaaacaaaa aaaaccacaa aacctctagt 360
tgccagttat tttttttatt ttttctagt gattcttctt tttttctttt ttctgagaca 420
aaaatttcac tttgtctccc tcgctagagt gcagcgggtca gctcactaca tgattctttt 480
agagacatgt taattcttta tattgagctg aagcctgttt cttttacttc tgtctcttct 540
tattcctccg cctttagtag ctgcctgaat cagattaatt cctcttttat tggcaagcct 600
g 601

<210> 35

<211> 601

<212> DNA

<213> Homo sapiens

<400> 35

gagttgagga ctaatgtttc tatatcacat cctgataatc tccacagtta tgaaaactaa 60
actatttccc ctccctccta cacttttccc caactttatt ttaatggaat tgtttggatt 120
tcttgattgt tttgtaatag tgggacacag caggccagga aagatttcga acaatcacct 180
ccagttatta cagaggagcc catggcatca tagttgtgta tgatgtgaca gatcaggtaa 240
gttccaagag gagatttgtt tacagtgacc aagtaggaag ccattatattg ataatgtca 300
sattcattta ctacttcata tataagccat cagtattaat tttatggcag aaaactttgt 360
ccactctcaa atataaatgt gaatcactta aaagacattt gttttcctgt aataaataaa 420
agattagtaa ttagttttac gtttgctttc aagggtattc ggttgatttt attgtcaact 480
aaataacttt gatcaaatag ccaagactct aacatatagg caagagtttg taggggaatcg 540
tgagttgctt ggcttatact gtgttcttgg tgtaaagtat taacaggaat atggcctggg 600
a 601

<210> 36

<211> 601

<212> DNA

<213> Homo sapiens

<400> 36

ctgataatct ccacagttat gaaaactaaa ctatttcccc tccctcctac acttttcccc 60
aactttatct taatggaatt gtttgatttt cttagattgt ttgtaatagt gggacacagc 120
aggccaggaa agatttcgaa caatcacctc cagttattac agaggagccc atggcatcat 180
agttgtgtat gatgtgacag atcaggtaag ttccaagagg agattgtgtt acagtgacca 240
agtaggaagc cattatttga ttaatgtcag attcatttac tacttcatat ataagccatc 300
rgtattaatt ttatggcaga aaactttgtc cactctcaaa tataaatgtg aatcacttaa 360
aagacatttg ttttctgtga ataaataaaa gattagtaat tagttttacg tttgctttca 420
agggattctg gttgtattta ttgtcaacta aataactttg atcaaatagc caagactcta 480
acatataggc aagagtttgt agggaaatcg gagttgcttg gcttatactg tgttcttggg 540
gttaagtatt aacaggaata tggcctggta attagaactt gtccatcaga attgcaaaaa 600
g 601

<210> 37
<211> 601
<212> DNA
<213> Homo sapiens

<400> 37
agtccttcaa taatgttaaa cagtggctgc aggaaataga tcgttatgcc agtgaaaatg 60
tcaacaaatt gttggtaggg aacaaatgtg atctgaccac aaagaaagta gtagactaca 120
caacagcgaa ggtatgttta agtttaatt ttcatactga atttgaagggt gttgaattat 180
gtatgggttc tgcagtaaca gtaaggccac agccttttaa aaatatgtgc actagaatac 240
tgtgacagtg acaatttgtg tagcatctgt ttggatccaa tgaacttagt tcctcacgct 300
ycattatgga tggtagaaat gcagtaagaa ttagtgaaaa agatttttca gtgttaattg 360
tgcctcatta ttctcttagg aatttgctga ttcccttgga attccgtttt tggaaaccag 420
tgctaagaat gcaacgaatg tagaacagtc tttcatgacg atggcagctg agattaaaaa 480
gcgaatgggt cccggagcaa cagctgggtg tgctgagaag tccaatgtta aaattcagag 540
cactccagtc aagcagtcag gtggagggtg ctgctaaaaat ttgcctccat ccttttctca 600
c 601

<210> 38
<211> 601
<212> DNA
<213> Homo sapiens

<400> 38
aatgaatttg caatctgaac ccaagtgaat aaacaaaatt gcctgaattg tactgtatgt 60
agctgcacta caacagattc ttaccgtctc cacaaagggtc agagattgta aatgggtcaat 120
actgactttt tttttattcc cttgactcaa gacagctaac ttcattttca gaactgtttt 180
aaacctttgt gtgctgggtt ataaaataat gtgtgtaatc cttgttgctt tcctgatacc 240
agactgtttc ccgtgggttg ttagaatata ttttgttttg atgtttatat tggcatgttt 300
rgatgtcagg tttagtcttc tgaagatgaa gttcagccat tttgtatcaa acagcacaag 360
cagtgtctgt cactttccat gcataaagtt tagtgagatg ttatatgtaa gatctgattt 420
gctagtctt ccttgtagag ttataaatgg aaagattaca ctatctgatt aatagtttct 480
tcatactctg catataattt gtggctgcag aatattgtaa tttgttgac actatgtaac 540
aaaacaactg aagatatgtt taataaatat tgtacttatt ggaagtaata tcaaactgta 600
t 601

<210> 39
<211> 601
<212> DNA
<213> Homo sapiens

<400> 39
aagcagcacc tttcctaatt ggcaaatgat cagactaatg tgtgctaattg tttttcttcc 60
atgcttttcag tcagattcaa ctattttatc ctccacagtt gcttaacttg gtgttgagg 120
agggtttaag cattaagata ggaagcagga aatttgattg ctctaaattt agaaattata 180
tccctaaaaa ttaaaacatg aatactgggt ggtaatgata attgaggcaa atgtatttat 240
tttggtgaca ttttgcatat atgaagattt tctgaaatag gaccttcaag atcctagggg 300
kttttgtttg gtttttaatt gtgaggaata aaaaatcttc tgcccacact ggcattttta 360
gggtgactgag gtcaaacggt gtttccttag gttgaaatag cagccaaaac attcttcacg 420
caggggcttg ggatatggct gctggcaaca cattttgttg tgggctcctt aatttaata 480
taaaatttaa gctaaacaca agccaaaaat gaatagggtt ttttaatttt tatttttcac 540
taaacaggca attgaaatac atggtacaaa aataagtggt aagataattg taaaatgaaa 600
t 601

<210> 40
<211> 601
<212> DNA

<213> Homo sapiens

<400> 40

```
ggaggggttta agcattaaga taggaagcag gaaatttgat tgctctaaat ttagaaatta 60
tatccctaaa aattaaaaca tgaatactgg gtggtaatga taattgaggc aaatgtattt 120
at ttgtggtga cat ttttgcat atatgaagat tttctgaaat aggaccttca agatcctagg 180
gggttttggt tgggtttttaa ttgtgaggaa taaaaaatct tctgcccaca ctggcatttt 240
aagggtgactg aggtcaaacg ttgtttcctt aggttgaaat agcagccaaa acattcttca 300
ygcaggggct tgggatatgg ctgctggcaa cacattttgt tgtgggctcc ttaatttaat 360
gataaaattt aagctaaaca caagccaaaa atgaatagggt ttttttaatt tttatttttc 420
actaaacagg caattgaaat acatggtaca aaaataagtg gtaagataat tgtaaaatga 480
aatggacaga atattcaatt ttccatctat gaaaatttca caataaaaat catagtttac 540
tttgtattat aggcgtgctt ggtgatcta ttcacctca cataaggcaa ctgacaaatt 600
c 601
```